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## BEAR CEREMONIALISM IN THE NORTHERN HEMISPHERE\*

By A. IRVING HALLOWELL

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## INTRODUCTION

ONE OF THE MOST interesting lines of approach to the culture of primitive peoples lies in a study of the relationship of any human group to the physical environment and biota of its habitat. No matter whether we begin our investigation with a study of material culture or subjective life, we soon discover that the intricacies of this relationship confront us at every turn. From the economic angle, of course, the tools, traps, weapons, or other devices which comprise a people's material equipment for making a living are of primary significance, but the traditional manner in which their relations to the natural world about them are conceived is an equally important topic. This aspect of the problem, the geographer usually ignores. It is often through the channels of thought which lead to an interpretation of natural

phenomena, however, that the ethnologist makes important discoveries regarding the basis of magico-religious beliefs. A knowledge of this stratum of thought often enables one to interpret much in the behavior of primitive people which would otherwise remain obscure. Moreover, one is further led to see that the adjustments made to the external features of the environment, far from being exclusively automatic or utilitarian in their nature, are governed to a large extent by factors of a socio-psychological order. This fact is of great importance in any investigation which concerns, as does ours, the relation of man to any or all of the living creatures of his environment, the class of natural phenomena to which he himself belongs.

#### MAN'S RELATION TO THE ANIMAL WORLD

Fundamentally, the study of man's relationship to the faunal world can be approached from two standpoints. First is the *utilitarian*, that is, the exploitation of animals for their flesh, skins, or other substances and, in the case of domesticated species, for services or products useful to man. The nearly universal dependence of human beings on a partially carnivorous diet, perhaps entirely so in the Paleolithic period, and the absence of data which would indicate that any peoples since Neolithic times have lived as strict vegetarians, sufficiently indicate the deep seated character of these food habits. The historical importance, therefore, of this intimate economic relationship of animals and man, is apparent. The domestication of animals, although relatively recent in time, is perhaps the most important chapter in the history of this age-long economic exploitation which animals have undergone progressively at the hands of man.

Second, we can study man's relation to the animals of his environment as he himself views it; that is to say, in its *psychological* aspect. Under this head may be included the enormous mass of folk beliefs and customs connected with animals which are so typical of primitive cultures. In this study we shall be concerned with certain specific aspects of the relation of man and animals as viewed from this latter standpoint.

Historically, it is legitimate, perhaps, to assume that the psychological phase of man's relation to animals grew up along with the utilitarian and that specific beliefs and practices took their characteristic forms at a very early period, in conjunction, no doubt, with the development of thought and custom along other lines. The cave art of Paleolithic man, for example, has been interpreted as the earliest manifestation of magico-religious attitudes toward the species of animals there represented.<sup>1</sup>

While the truth or falsity of this assumption need not detain us here, it is apparent that even at this early epoch man's view of a considerable number of animal species was not *exclusively* utilitarian. There was a reaction to animal life, whether esthetic, magico-religious, or both, which stimulated what to our minds is an astonishing artistic performance, no matter what may be the consensus of opinion in respect to its subjective significance.

Nevertheless, it may be well here to sound a note of warning against the naïve assumption that the cultural manifestations of Paleolithic man supply us with data which throw light on the *origins* of man's earliest attitudes toward animals. Thousands

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<sup>1</sup> Macalister, e.g., discussing this question, rejects the view that the cave art represents a purely esthetic manifestation (pp. 500, 504), "religious iconography" (p. 505), or totemistic beliefs (pp. 505-6). He is inclined to follow S. Reinach (*L'Art et la Magie, à propos des peintures et des gravures de l'âge du renne, L'Anth.* XIV, 1903, p. 257 ff.) who regards the depiction of animals as a magical means for facilitating their capture or increasing the food supply of Paleolithic man. Reinach relied to a considerable extent upon the argument that only useful animals are depicted but, as Macalister points out, this assumption has been somewhat weakened by the discovery of the felines of Les Combarelles. For a summary of the author's psychological interpretations of the cave art see p. 510.

Obermaier, pp. 259-264, follows the magico-religious hypothesis, as does MacCurdy, I, pp. 230, 239, 251.

Burkitt endorses the magical interpretation of the cave art (p. 313) but in respect to the *art mobilier* expresses the view that "though magic played a great part, decoration must certainly be included, and besides we have probably sketches made by the artist to take into the cave with him, and also school practice" (p. 316).

Boule (p. 257 note) holds strongly to the view that fundamentally the cave art is a purely esthetic phenomenon "without at the same time refusing to allow a certain influence due to the practice of magic."

Osborn is non-committal. He says (pp. 358-9), "How far their artistic work in the caverns was an expression of such (a religious) sentiment and how far it was an outcome of a purely artistic impulse are matters for very careful study."

of years of human cultural development had preceded the florescence of this art, and its geographical distribution is limited to a small portion of Europe. From the single stream of cultural development which this art probably represents, we must not, therefore, allow ourselves to generalize regarding man's psychological reactions. If our contemporary knowledge of primitive cultures is any criterion, we have every reason to believe that then, as now, cultural differences characterized mankind and that divergencies in man's attitude toward animals had probably set in.

In order, however, to bring into bolder relief the outstanding attitudes which in general typify primitive cultures studied in recent times, it will not be inaccurate to group them *en bloc*, for the purpose of comparison with the prevalent attitudes toward the animal kingdom found in Euro-American society. From these they all differ in several important respects.

In our culture, as a result of several centuries of the scientific tradition, animal life has been studied from a rational point of view. On the one hand, this mental attitude has led to a classification of the creatures of the earth into phyla, orders, classes, etc., based on their morphology and genetic relationships, and, on the other, to an interpretation of animal behavior in terms of instincts, reflexes, environmental adaptations, and so forth. Consequently, there is today a marked absence<sup>2</sup> of "folk attitudes" toward animals, based on oral tradition alone and unchecked by

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<sup>2</sup> This statement is to be taken, of course, in a relative sense and quantitatively. Customs such as "telling the bees," among the European peasantry are, after all, very few in number and of relative insignificance. At the same time there are pseudo-scientific explanations of animal behavior found current even among professional investigators, as well as the laity, which border on the folkloristic. An attempt is made to extend the frontiers of scientifically attested facts by speculation. Analogical reasoning is resorted to and the usual anthropomorphism results. A folk-lore of animal conduct thus takes its rise, of which wild or domestic creatures may be the subjects, and for which the professional investigator is often as responsible as the layman. Perhaps (as Dr. A. A. Goldenweiser has suggested to the writer) we may even go so far as to say that in view of the many "human characteristics" which many animals undoubtedly exhibit—in temperament, facial expression, social qualities, etc., it would be strange if we human beings did not observe this fact and transmute it into some form of anthropomorphic attitude towards such creatures.

scientific observation and experiment. In fact, a serious interest in animal life and habits has been absorbed almost completely by professional groups (naturalists, zoologists, physiologists, psychologists) and the lay person usually receives his stock of information more or less directly from this source. The development of urban living has, no doubt, largely contributed to this condition, as more and more people have become divorced not only from any first-hand observation of wild animals, but also from personal contact with domesticated species, except those which, being enjoyed for their social or esthetic qualities, are retained as household pets. Thus, animals in our culture have come to be viewed in an almost exclusively practical light<sup>3</sup>—to furnish food, clothing, service, esthetic pleasure or sport—untinctured for the most part with folkloristic associations.

On the psychological side, therefore, the prevailing view of the animal world in Euro-American society is characterized by a paucity of folkloristic elements, coupled with an assumed superiority to other orders of sentient beings. These traits differentiate our culture from those of primitive peoples, no matter how the latter may vary from each other in the details of their concepts. Not that the utilitarian relationship, from an objective standpoint, is less important to them, but it is embellished in their minds with a rich, varied, and, to us, even a fantastic mass of beliefs which are inseparable from it and lead to practices which are curious and even unintelligible without some knowledge of the accompanying philosophy of nature.

Another contrasting feature, paradoxical though it may be, deserves emphasis. This is the thoroughgoing practical knowledge of the life, habits, and structure of animals, which the average individual in a primitive culture commands—a knowledge, indeed, which many naturalists would be happy to possess.<sup>4</sup> Particularly

<sup>3</sup> Except in some quarters where humanitarian sentiments or vegetarianism are stressed as the proper ethical attitudes.

<sup>4</sup> Speck (6) points out that the knowledge of the Wabanaki tribes regarding mammals is more extensive and exact than their information about birds, which is to be accounted for by their almost entire dependence upon the hunt as a means of subsistence (p. 350). It is also interesting to note that their knowledge of ornithological facts is "based really less upon observation than upon interpretation" (p. 351).

is this true in cultures where hunting or fishing is the chief pursuit. This information is tightly interwoven with the folkloristic elements, however, and consequently we find that observation almost imperceptibly gives way to the dominating influence of the peculiar modes of folk-thought characteristic of the group, if an individual is pressed for an explanation of some specific bit of animal behavior. Whereas the scientist will resort to rational modes of explanation and stop there, the explanation advanced by the hunter or fisherman of a primitive community will be traceable to, and consistent with, the folkloristic pattern congenial to him, because he has been reared in its *milieu*.<sup>5</sup>

Unchecked, then, by scientific observation, we find the utmost variety of beliefs which, in primitive cultures, are held regarding the origin, relationships, characteristics, behavior, and capacities of animals. Practically all of them are decidedly exotic to our habits of thought.<sup>6</sup> Animals are believed to have essentially the same sort of animating agency which man possesses.<sup>7</sup> They have a language of their own, can understand what human beings say and do, have forms of social or tribal organization, and live a life which is parallel in other respects to that of human societies<sup>8</sup>.

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Henderson and Harrington write; "That the Indians have been close observers of animals is shown by the fact that they have developed names for almost all the parts of birds and mammals, as claws, whiskers, foot-pads, etc." (p. 9). Although the Tewa "distinguish species more closely than the average white man who has not had zoologic training" (p. 7), yet the "Indian nomenclature as a whole recognizes differences, not relationships. There is little, if any, evidence of the classification . . . of species in consanguineous groups, as orders, families, and genera, except in very obvious cases. Whether he does so arrange them in his mind, even though he does not express the idea in his nomenclature, is very doubtful and should be more fully investigated." (p. 8).

<sup>5</sup> Goldenweiser (3), p. 243.

<sup>6</sup> It would be presumptuous of course to attempt a comprehensive register of these concepts, but for the sake of contrast to our own attitudes some of the more common ones are reviewed. The footnotes simply refer to a few outstanding illustrations. Cf. the article by N. W. Thomas.

<sup>7</sup> E.g. the Chukchi (Czaplicka (5), p. 260); Ainu (ibid p. 275); the Altaians (ibid., p. 282), Sternberg (1), p. 248, sums up the attitude of the Gilyak thus: "Every animal is in point of fact a real being like a man, nay a Gilyak such as himself, but endowed with reason and strength which often surpasses those of man." Cf. N. W. Thomas.

<sup>8</sup> To the Penobscot mind (Speck (6), pp. 349-50) the "order of birds, like themselves, constituted tribes and bands, separated by their different structure, manners

Magical or supernatural powers are also at the disposal of certain species; they may metamorphosize themselves into other creatures or, upon occasion, into human form;<sup>9</sup> some of them may utilize their powers to aid man in his pursuits; others may be hostile. Dreams<sup>10</sup> may become a specialized means of communication between man and animals, or by the interpretation of the cries or movements of certain creatures, man may be able to guide his destiny for good or ill.<sup>11</sup> Animals may also become deities on their own account, or the temporary or permanent abode of "gods" or "spirits," or for other reasons<sup>12</sup> come to assume an especially sacred character.<sup>13</sup> They may become the messengers of a deity,<sup>14</sup> play the rôle of "guardian spirits" to man,<sup>15</sup> become culture

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and utterances, as each tribe, though subdivided into smaller groups, retains its form in customs and language particular to that nation or genus from which it seems to have descended." They had their head chief, usually the eagle, minor chiefs, and local groups. For Chukchi beliefs see Bogoras (2) pp. 283-4.

<sup>9</sup> "Identification of man and animals and transformation of one into the other are most characteristic traits of primitive belief. These identifications and transformations, the primary source of which must lie in the obvious physical and psychic similarities between man and beast constitute the favorite theme of all mythologies." Goldenweiser (4) p. 631.

<sup>10</sup> F. G. Speck (8).

<sup>11</sup> See e.g. the topic Augury in the article Divination. H. E. Vol. 4, pp. 778-9.

<sup>12</sup> According to Max Muller (chapt. IX) the predynastic Egyptians worshipped animals as divine in themselves, although in later times there was a belief in the re-incarnation of celestial gods in animal form. This was a secondary development. He also draws attention to the fact that cats were *sacred* but not *divine*, i.e. they could not receive prayers and offerings. But this was too subtle a distinction for popular consumption and such sacred creatures were actually termed "gods." See also the similar view of Budge, p. 345, and for special studies A. Wiedmann, *Tierkult der alten Aegypter*, 1912; T. Hopfner, *Tierkult der alten Aegypter* (Denkschriften als ad. Wien. LVII Abh. 2). Farnell, *Greece and Babylon*, Chap. IV, discusses the alleged theiromorphic deities for the whole eastern Mediterranean area and among other points, strictures the loose manner in which the word "worship" has been used by both ancient and modern writers. See also the very superficial chapter on "The Worship of Animals" in E. Washburn Hopkins (2).

<sup>13</sup> The veneration of the water-buffalo by the Toda (Rivers (2) and the horse by the Yakut may be mentioned in this connection. (Jochelson (7), p. 262).

<sup>14</sup> Among the Wabanaki tribes the wolf and the loon were thought to be the messengers of Gluskabe; among the Borneans (Hose and McDougall) the hawk played a similar rôle.

<sup>15</sup> See Benedict.

heroes<sup>16</sup> or a demiurge.<sup>17</sup> On the other hand, a belief in the transmigration of human souls into animal form may prevail.<sup>18</sup> Frequently, too, animals appear in the ancestral tree of man<sup>19</sup> or become the eponyms of social units.<sup>20</sup>

Folk-lore and mythology give detailed expression to many of these beliefs<sup>21</sup> and others can be inferred from customs which have such concepts as a motivating background.<sup>22</sup> In decorative art,<sup>23</sup> also, animal motifs play an outstanding rôle in several cultures, and the movements and characteristics of animals frequently are dramatized in dances.<sup>24</sup>

As indicated even in this rough survey of the varied rôle which animals may come to play in the beliefs and behavior of primitive peoples, the association of animals with patterns of magico-religious thought is especially important. In many cultures, indeed, without a grasp of his attitude toward animals, an understanding of the deeper layers of the philosophy of primitive man remains obscure. It becomes apparent, for example, that the categories of rational thought, by which we are accustomed to separate human life from animal life and the supernatural from the natural, are drawn upon lines which the facts of primitive cultures do not fit. If we are to understand or interpret the *Weltanschauung* of peoples who entertain such notions, therefore, we must rebuild the specific content of these categories upon the

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<sup>16</sup> In North America the raven and coyote are familiar examples.

<sup>17</sup> N. W. Thomas p. 485.

<sup>18</sup> See N. W. Thomas pp. 488-9 and pp. 493-4 where a considerable number of sources are listed. Frazer has an encyclopedic compilation in Ch. 16.

<sup>19</sup> Notably in some, although not in all, totemistic groups. Consult Goldenweiser (1), pp. 253-4.

<sup>20</sup> In particular they are found to be associated with sibs as in Australia, among the tribes of Southeastern United States, the Iroquois and on the Northwest Coast of America. Their fitness for the role of classifiers is discussed by Goldenweiser (2), p. 293.

<sup>21</sup> As characters in the oral literature of practically all primitive peoples, animals play a proportionately large part. Folk-lore is not always, however, an adequate record of contemporary beliefs, because it may refer to the world as conceived in a mythological past, when the relation of men and animals was "different."

<sup>22</sup> E.g., food taboos, the propitiation of game animals, etc.

<sup>23</sup> Especially in Magdalenian art; on the Northwest Coast of America, the Amur region, Melanesia. Cf. N. W. Thomas, p. 485.

<sup>24</sup> N. W. Thomas, pp. 495-6.



foundation of *their* beliefs, not ours. The truth or falsity of the categories is not at issue but simply the inapplicability of our concepts of them as a point of departure for a comprehension of primitive thought.

As a concrete illustration of the mingling of magico-religious concepts with the utilitarian relationship of animals and man, let us consider the attitude of the hunter toward the game on which his livelihood depends.

From our point of view we are inclined to be impressed with the mechanical devices which primitive man has elaborated for the purpose of trapping, snaring, spearing, or shooting animals and the skill which he exhibits in the manipulation of them compels our admiration. Consequently, we measure his success in these terms. But, in doing so, we ignore the subjective aspect of the food and pelt quest which, I think, bulks larger in the consciousness of the individual hunter than the knowledge and skill which so forcibly impress us at first glance. That is to say, the primitive hunter finds himself in a radically different position with regard to the game he pursues than can be inferred from our own habits of thought. To him the animal world often represents creatures with magical or superhuman potencies, and the problem of securing them for their hide, meat or fur involves the satisfaction of powers or beings of a supernatural order. Consequently, strategy and mechanical skill are only part of the problem. Success or failure in the hunt is more likely to be interpreted in magico religious terms than in those of a mechanical order.

Hill-Tout,<sup>25</sup> in discussing the salmon ceremonies of the Lillooet, sums up the matter in a way which allows of a broader generalization. He says that their significance "is easy to perceive when we remember the attitude of the Indians toward nature generally, and recall their myths relating to the salmon, and their coming to their rivers and streams. Nothing that the Indian of this region eats is regarded by him as mere food and nothing more. Not a single plant, animal, or fish, or other object upon which he feeds, is looked upon in this light, or as something he has secured for

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<sup>25</sup> Hill-tout (1), p. 140.

himself by his own wit and skill. He regards it as something which has been voluntarily and compassionately placed in his hands by the good will and consent of the 'spirit' of the object itself, or by the intercession and magic of his culture heroes, to be retained and used by him only upon the fulfillment of certain conditions. These conditions include respect and reverent care in the killing or plucking of the animal or plant and proper treatment of the parts for which he has no use, such as the bones, blood, and offal, and the depositing of the same in some stream or lake, so that the object may by that means renew its life and physical form.

"The practices in connection with the killing of animals and the gathering of plants and fruits all make this quite clear, and it is only when we bear this attitude of the savage toward nature in mind that we can hope to rightly understand the motives and purposes of many of his strange customs and beliefs."

Skinner,<sup>26</sup> writing of the Menomini, observes that: "Besides the use of such practical devices as traps and snares, the Menomini resort to every possible form of sympathetic and contagious magic in order to overpower and secure the game with which their country abounds. The means employed vary from simple charms and powders with their mystic formulae, to complicated bundles. . . . The actual skill of the hunter amounted to nothing if he received no assistance from above. Without such help his mere ability to approach the game, his knowledge of their haunts and his accuracy with weapons were useless; moreover, he was at the mercy of wicked people, sorcerers and witches." The unsuccessful hunt was thus easy to explain. Levy-Bruhl is probably not far wrong, therefore, in generalizing this attitude for the primitive world at large.<sup>27</sup>

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<sup>26</sup> Skinner (2), pp. 131-2. Cf. Speck (7), pp. 455, 457, 464. Throughout the territory occupied by the Montagnais-Naskapi peoples, in fact, the soul-spirits of the game animals must be satisfied by certain observances on the part of the hunter, or else no animals will be caught. Also Bogoras (3) pp. 207-209: ". . . the chase . . . is not conceived as a natural competition of the hunter and the animal in strength, skill and cunning." It is "far more a competition of man and animal in magical knowledge."

<sup>27</sup> Levy-Bruhl, p. 341, "Whatever the instrument., weapons, tools, or processes employed, primitives . . . never consider success certain or even possible if these

Attitudes and practices such as these, expressing such radically different concepts of man's relation to the faunal world from those to which we are acculturated, are instructive as an indication of the range of subjective values, available for study in primitive society. Exotic attitudes toward animals introduce us to new levels of the magico-religious consciousness where propitiation, taboo, ceremonials, worship, etc. are mingled with economic pursuits, to which they give us a psychological key. For purposes of study they may be dissociated from these practical activities, but from the viewpoint of the human beings habituated to them, they form an integral part of the hunt.

#### ORIGIN OF CONCEPTS RELATING TO ANIMALS

We may now turn to a brief discussion of a very fundamental question, but one to which there is no satisfactory answer. How did the ideas originate which characterize primitive man's view of the animal world and his relation to it?

Under the influence of the theory of evolution, anthropologists of a generation ago were stimulated to attack the problem of cultural origins by projecting into the past interpretations of the mentality of early man derived from the study of "modern savages." Theories were deduced from data assembled by means of the so-called "comparative method" with its corollary, the doctrine of "survivals," abetted in some instances by the arbitrary selection of certain peoples as representing the earliest stages in cultural evolution. The problem of origins was "solved" by reconstructing for early man a mental disposition which seemed the logical medium for the expression of the ideas and customs actually found in primitive cultures. Psychological reactions to the outer world, assumed to be similar everywhere in the human species and entirely divorced from antecedent cultural determina-

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alone are used, without the concurrence of the unseen powers having been secured. Material aids, although indispensable, play but a subordinate part." P. 308—"The primitive who has a successful hunting expedition, or reaps an abundant harvest, or triumphs over his enemy in war, debits this favorable result not (as the European in a similar case would do) to the excellence of his instruments or weapons, nor to his own ingenuity and efforts, but to the indispensable assistance of the unseen powers.'

tion, were imputed to this hypothetical *homo*. These responses were believed to have given rise to the earliest steps in human progress.

In recent years, however, this method has been shown to be a highly unscientific and gratuitous procedure.<sup>28</sup> As Goldenweiser puts it—man's "original nature is an abstraction or at best but a reconstruction born of doubtful premises, swaying insecurely in the chronological vacuum of missing links."<sup>29</sup> Nevertheless, the method referred to has been utilized by most writers who discuss the origin and development of religion,<sup>30</sup> and even contemporary students cling to it.<sup>31</sup> Consequently we find many attempts to explain the origin of beliefs, customs, cults, ceremonials, etc., in which animals figure,<sup>32</sup> in terms consistent with the theory of religious origins advocated by the author.<sup>33</sup> What is usually termed "animal worship" occupies a more or less conspicuous place in the discussion of these authorities, although different

<sup>28</sup> Boas (6); Goldenweiser (5); Rivers (1).

<sup>29</sup> Goldenweiser (6), p. 328.

<sup>30</sup> See Schleiter's critical review, particularly chapters 2 and 3.

<sup>31</sup> E.g. Hopkins (2).

<sup>32</sup> Insofar, of course, as these seem to fit into the religious category of thought and behavior assumed by the writer. See Lowie (5), Introduction, for a discussion of the difficulties involved in a satisfactory definition of religious phenomena.

<sup>33</sup> If, for example, as Tylor would have it, the original psychical predisposition of man prompted him to view the world animistically, then the "sense of an absolute physical distinction between man and beast" being absent, "the cries of beasts and birds seem like human languages and their actions guided as it were by human thought" (I, p. 469). Early man, therefore, naturally attributes to animals many of the same psychological characteristics and capabilities which he himself possesses; he may go even further and endow them with powers which, in particular cases, far surpass his own (II, 229). Animals may thus become the focus of religious veneration or worship as do other natural objects or forces in nature. Or, according to Marett's theory, man, instead of interpreting nature and animals in terms of an animating "spiritual" agency, developed his religious notions in some "pre-animistic stage." He sees in nature some vague, mysterious, supernatural or occult "power" or "force" as the *modus operandi*, and animals which display odd or uncanny characteristics, "white animal. (e.g., white elephants or white buffaloes), birds of night (notably the owl), monkeys, mice, frogs, crabs, snakes, and lizards; in fact, a host of strange and grewsome beasts, are to the savage of their own right and on the face of them, instinct with dreadful divinity" (p. 21). Spencer on the other hand derived "animal worship" from the propitiation of ghosts, the cornerstone of his theory of religious origins (p. 353 and chap. xxii).

writers do not use the term to cover identical or even similar beliefs and practices.<sup>34</sup> As most of them, either implicitly or explicitly, assume a unilinear theory of religious evolution, "animal worship" is frequently accorded a distinct stage in the early religious development of mankind.<sup>35</sup>

On the other hand, some writers have endeavored to explain the emergence of specific animals into prominence as the objects of magico-religious beliefs and customs, by emphasizing some selective factor as the cause of the veneration given to them. If particular species are respected, venerated, worshipped, or become the center of a cult or a set of customs which imply a religious attitude, whereas other animals are not so regarded, it is said to be due to the fact that the former possess certain

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<sup>34</sup> Like so many terms used to describe religious phenomena "worship" is used in a loose and ambiguous sense. Thomas (p. 486), commenting upon this fact, says "at one end of the scale we find the real divine animal, commonly conceived as a 'god-body,' i.e., the temporary incarnation of a superior being, with a circle of worshippers. At the other end, separated from the real cult by imperceptible transitions, we find such practices as respect for the bones of slain animals, or the use of a respectful name for the living animal." Hopkins (2) in discussing animal worship, includes all varieties of reverence and respect for animals, as well as the veneration of animal gods. Specific practices, often similar in their nature, also draw forth a variation in the terminology which is used to describe them. The ceremonialism of which bears are the object among the northern peoples of America and Eurasia is selected by Saussaye to illustrate "animal worship" I (p. 98), while to I. King (p. 247) similar practices are characterized as "typical of the kind of acts out of which worship grows"; and Hopkins, examining the bear-festival of the Ainu, finds himself at the 'very edge of true totemism.' Other writers simply describe the Ainu as "bear-worshippers" (Bird, p. 275; Mitra, pp. 468, 469).

<sup>35</sup> Reinach thinks that the animal art of paleolithic Europe is indicative of such a development. We have here, he writes, "the first steps of humanity in the path which led to the worship of animals (as in Egypt), then to that of idols in human shape (as in Greece) and, finally, to that of divinity as a purely spiritual conception" (Apollo, p. 8). Lubbock places "animal worship" among the various "nature cults" which occupy the third stage in his reconstruction of religious evolution, when "everything is worshipped indiscriminately" (Appendix, p. 610).

One of the most noteworthy attempts along this line was the interpretation of "totemism" as a religious phenomenon; in fact, the identification of totemism with animal worship. Goldenweiser (1) however, conclusively shows that "the totem, as an object of worship, proves to be perhaps the least permanent and the most variable, qualitatively, of totemic features," so that 'totemism as a necessary stage in the development of religion becomes an absurdity, and the concept itself, of totemism as a specific form of religion, ought to be abandoned' (p. 264.)

qualities or stand in some special relation to man, which inevitably and everywhere must stimulate his imagination to reverential attitudes and behavior. Thus, Frazer believes this differential factor to be the emotion of fear, which the qualities and behavior of certain animals stir up in the mind of primitive man.<sup>36</sup> For King<sup>37</sup> and Toy<sup>38</sup> it is the recognition in certain creatures of mysterious or superior capabilities which inclines man to select them as objects of reverence. Frazer conjointly emphasizes the correlation between economic dependence on specific animals and propitiation of their "spirits."<sup>39</sup> Thomas, Toy, and Morris also refer to the economic relation as a determining element,<sup>40</sup>

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<sup>36</sup> Frazer—(part II, Taboo) develops this theory in connection with his compilations of hunting taboos. He says that just as the fear of the souls of slain enemies prompts the savage to certain propitiatory acts the same sort of motive urges him to "propitiate the spirits of the animals he has killed," because, like man, animals are "endowed with souls and intelligence." "While the savage respects, more or less, the souls of all animals, he treats with particular deference the spirits of such as are either especially useful to him or formidable on account of their size, strength, or ferocity accordingly, the hunting and killing of these valuable or dangerous beasts are subject to more elaborate rules and ceremonies than the slaughter of comparatively useless and insignificant creatures" (pp. 190-191). Cf. part V, vol. II, pp. 208, 237, 273).

<sup>37</sup> I. King, p. 247, accepts the animistic world view of early man, and therefore animals, as well as persons, may come to be regarded as deities because of "powerful and mysterious" qualities.

<sup>38</sup> Toy argues that "of all non-human natural objects it would seem to have been the animal world that most deeply impressed early man." Not only did close association with them give ample opportunity for the observance in animals of qualities similar to those possessed by man (swiftness, courage, ferocity, skill, and cunning), but "in certain regards they appeared to be his superiors, and thus became standards of power and objects of reverence" (pp. 104-5). Hence, the necessity for obtaining their good will. This was especially true for those most important for safety and convenience. "These, invested with mystery by reason of their power and their strangeness, were held in great respect as quasi-gods, were approached with caution, and thus acquired the character of sacredness."

Marett differs from these writers in that he does not use the impression of oddness or uncanniness which he believes certain animals created on the mind of primitive man as a factor which of itself elevated them into a religious category. The odd or uncanny qualities which they display are, from the point of view of his theory, an indication of the operation of "mana" and it is their possession of this power and not mere oddness or uncanniness itself which evokes the religious attitude.

<sup>39</sup> Frazer, *op. cit.*

<sup>40</sup> N. W. Thomas maintains that propitiation of animals is in proportion to their economic importance (p. 515). Toy holds that originally all beasts were sacred but

the assumption being that a sense of usefulness led early man to develop religious attitudes and practices toward the animals on which he habitually depended for sustenance.

One of the essential weaknesses of theories, such as the foregoing, which so often have been offered to explain the origin of the attitudes which primitive man entertains toward the animal kingdom at large or particular members of it, has been the transformation of rather plausible descriptive generalizations into what are deemed to be explanations of the phenomena in question. "Animism," for example, as a description of an attitude toward the faunal world, is valid enough as a general statement, but it does not explain or elucidate for us the veneration of any particular species. A similar fallacy lurks in the theory that animals which are "feared," or considered more powerful than man, or dangerous to him, are revered or worshipped for these reasons. The same criticism applies to an emphasis upon the economic relationship as a causal factor. It is perfectly true, of course, that in certain cases animals which are useful, or feared, or thought to possess superhuman capabilities, are propitiated and held in special esteem, but this descriptive correlation is far from being a universal one, and, without a consideration of alternative possibilities, cannot be used to prove a causal relationship.

The use of broad and vaguely defined categories for purposes of classification, as, for example, "animal worship," also serves to obscure fundamental problems. At first glance they appear to be useful because the emphasis is upon similarities, and, although these are generally of the most superficial character, yet, when data are assembled from peoples in all parts of the world, the general effect is apt to be impressive. But such descriptive

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that "gradually those most important for man are singled out as objects of special regard. . . . Since animals are largely valued as food changes in the animals especially honored follow on changes in economic organization" (p. 108).

Morris argues that "in general, the worship of animals seems to support our contention that human nature reverences the 'source whence all our blessings flow'—nay, often reveres as gods the very blessings themselves. . . . When we find the hunter's god in the form of a wild animal and the fisher worshipping his fish, we are prepared to look for sacred cattle among pastoral peoples. Nor are we disappointed" (p. 410).

categories soon turn into ready made catch-alls, into which customs and attitudes are hastily thrust without a previous study of their integration in the cultural patterns from which they have been taken. Nor is due weight given to the diverse historical background of the cultures from which they come, nor to their appearance at epochs widely separated in time. Furthermore, a classification on the basis of similarity generally causes differences in customs and beliefs to be ignored, minimized, or glossed over. Indeed, the unsatisfactory character of these broad classifications of cultural phenomena, and the theoretical deductions which are so often based upon them, become more and more apparent, the closer one grapples with the data of specific cultures in their totality.

To understand, for example, the position of animals in the thought of any one people is far from an easy task.<sup>41</sup> Just as, economically, all of the animals of a people's habitat are not considered of equal importance, it is likewise found that in subjective valuation, and particularly in their association with magico-religious concepts, some creatures rank much higher than others. Moreover, those which are of major importance economically, are not always the creatures which enter most intimately into the magico-religious pattern of the group,<sup>42</sup> while in other

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<sup>41</sup> Hose and MacDougall (1), e.g., have essayed this for a section of Borneo. While not the final word yet it shows the possibilities of such a study in assembling data from this point of view.

<sup>42</sup> The seal, e.g., on the Northwest Coast of America or the beaver in Labrador. Czaplicka (4), p. 495: It is "curious and hard to explain why the reindeer, which plays such a unique rôle in the life of the Paleo-Siberians is neither worshipped nor venerated and does not in any way enter into the religious life of the people except as a sacrificial animal. In the case of the horse which occupies a similar position among the inhabitants of Central Asia it is quite the reverse." In respect to the reindeer Czaplicka's statement requires some qualification. Mr. H. V. Hall, e.g., points out that "in a tale of the Taz Yurak the hero, a shaman, drives four bucks sacred to one of the chief Gods. They draw a sledge which carries the images of the gods. The reindeer which draw the sledge containing the image of this god must be driven only by a shaman and 'one cannot drive them for fun.' In another tale the only possessions of a young shaman are two reindeer, each sacred to one of two of the greater gods. They are 'wonderful reindeer,' marked by peculiarities of the antlers. In the other story the deer are white and when the shaman drives them into the sea it freezes before them as their hoofs touch the surface. The devotion of reindeer to the gods in fact seems closely to resemble the similar practice with regard to horses in the south."



cases there may be a high degree of correlation.<sup>43</sup> In the artistic sphere the animals which appear most conspicuously as decorative motifs may or may not be the same ones which figure prominently in mythology or upon which economic dependence is placed.<sup>44</sup> Again, there may or may not be a correlation between these creatures and those to which are attributed the most powerful supernatural attributes. Each culture exhibits its own peculiar combination of features which cannot be deduced from any general principles of association. It is only as we comprehend specific cultures in terms of their own range of values and concrete expressions that the rôle of animals in their life and thought becomes intelligible. Only in this setting do qualitative terms such as fear, respect, reverence, regard, worship, etc., have any real force as descriptions of subjective attitudes toward the animal world. It is the reverse of this process of detailed cultural analysis, that has led to the hasty classification of data and broad interpretative generalizations which, plausible enough in some cases and of some value as working hypotheses, are, nevertheless, found to be useless to either describe or explain the differential features of specific cultures.

Another point which needs emphasis, is suggested by an examination of the attitudes manifested toward nature and the animal world in particular cultures. This is the fact that man does not envisage natural phenomena afresh, but looks out upon the animal and plant life of his environment, the solar bodies, and all the rest of the world about him, through the cultural spectacles with which the accident of birth has provided him.<sup>45</sup> For man at

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<sup>43</sup> E.g. the buffalo of the Zoda or horses among the Khirgiz.

<sup>44</sup> Laufer (1), p. 5: "It is indeed most remarkable that animals such as the bear, the sable, the otter, and many others which predominate in the household economy and are favorite subjects in the traditions as well as in daily conversation, do not appear in art, whereas the ornaments are filled with Chinese mythological monsters which are but imperfectly understood." In the art of the Northwest Coast of America on the other hand there is a close parallelism to be noted between the animals which appear in folk-lore and mythology and those which appear as decorative motifs. Some of these are of economic importance, others, such as the shark, are not.

<sup>45</sup> Yet Hose and McDougall (1), e.g., entirely overlook, or at least grossly underestimate this cultural factor when they conclude from their survey of customs and beliefs regarding animals in Sarawak that (omitting the sacrificial animals) these

primitive culture levels, except perhaps in a past too remote for speculation, "Nature" as we in our sophistication like to abstract it, never exists as a stimulus, unaccompanied by a host of traditional associations, the individual items of which have their historical roots in a still more remote past. Every culture, then, whatever its chief or outstanding characteristics may be, includes some traditional way of interpreting natural phenomena which typifies it. Once a mode of interpretation becomes established in the cultural tradition of a group, it tends to dominate the minds of individuals exposed to it and supplies them with characteristic reaction patterns to all the various types of natural phenomena which they find in the world about them.

Therefore, the explanation of customs and beliefs by some simple psychological formula, couched in terms of "individual psychology," whether applied to origins or later developments, is putting the cart before the horse. That is to say, a specific practice or belief, whether found in one tribe or many, never represents a direct psychological response of individuals to some aspect of the outer world.<sup>46</sup> The cultural *milieu* too early conditions the subjective attitudes, as well as the overt behavior of individuals, for this to be possible. The source of their beliefs and practices is, therefore, the historic tradition (culture), and the history of particular customs and beliefs must be pursued at the cultural, not the psychological, level.

The possibility of convergent development of similar customs and beliefs in different cultures, owing not to the psychic unity of man, but to the concept that similar end results may come from diverse antecedents, is also ignored. The belief that animals have souls, the selection of animal eponyms for social groupings, the propitiation of the spirits of animals, etc., may conceivably have developed in human thought more than once, and from different

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may all be explained as a "direct and logical reaction of the mind of the savage to the impression made upon it by the behavior of the animals" (p. 100). Thus while neatly disposing of decadent totemism as an explanation of these customs and beliefs, the substitution of their own hypothesis is too naively psychological to offer a more satisfactory interpretation.

<sup>46</sup> Vide Bartlett, pp. 8-13, for a critical discussion of the fallacy on which this notion is based.

premises or historical settings. Nor is it necessary to assign specific customs or general attitudes toward animals to an early culture level in the history of all peoples, as a characteristic stage of thought or religion. It is more likely that a great many of the differences we observe in our empiric data regarding animals in human history, are due to the fact that they arose at different epochs, in different places, and under different cultural conditions. If there is any plausibility in this view, it affords another argument against superficial classification of data and unitary explanations.

On the other hand, similarities, where actually shown to exist, particularly if they occur in contiguous areas, may be due to diffusion or common historical antecedents. For this reason the geographical distribution of various customs and beliefs is of prime importance as a preliminary to any deductions concerning their history and development.

Any study, therefore, of man's relation to the animal world may be approached methodologically from two angles. First is the intensive study of animals from the point of view of a particular culture. This would include their utilitarian aspects, the native classification of species, as well as the rôle of animals in mythology, art, magico-religious beliefs, and so forth. While highly desirable, this sort of a study should begin in the field with an ethno-zoological investigation such as Harrington made for the Tewa, as preliminary to the investigation of beliefs and customs. Unfortunately, data of this kind are not available for most primitive tribes.

Second, comparative studies may be made which, on the economic side, bring out the similarities and differences which characterize the use of related species in different cultures. At the psychological level this approach may be utilized to bring out the rôle which the same animals play in different cultures and the similar rôle of different animals. Or, we may start with specific customs and beliefs which are connected with the same, or different, animals in various cultures. If the cultures studied are contiguous, the problem assumes greater significance because there is always the possibility that light may be thrown upon the historical connections of these cultures.

NATURE AND SCOPE OF PROBLEM  
TO BE INVESTIGATED

In view of the emphasis which has been given the psychological interpretation of the origin of customs and beliefs connected with animals, it seems to the writer that comparative studies are of the utmost importance—particularly where the rôle of the same species can be studied in different cultures, and over a considerable geographical area. We can secure by this means some insight into the differential factors which have influenced cultural development, while at the same time the problem of historical relationships of the peoples studied may, to some extent, be elucidated.

Our investigation is of this type and but one animal—the bear—has been taken as the focus of attention. What justification is there for this apparently arbitrary selection?

Attention has been called, more than once, to the prominent rôle which the bear plays in the customs and beliefs of certain peoples of North America, Asia, and Europe. Frazer and de la Saussaye, indeed, have quite boldly grouped the tundra and forest folk of these regions together from this point of view. "The reverence of hunters for the bear which they regularly kill and eat," says the former, "may thus be traced all along the northern region of the Old World, from Bering Strait to Lappland. It reappears in similar form in North America."<sup>47</sup> Other writers have stressed the reverential attitude of the northern Asiatic peoples toward the bear,<sup>48</sup> or have grouped with them European peoples having analogies in ideas or customs.<sup>49</sup> Attention has also been

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<sup>47</sup> *Golden Bough* part v, vol. II p. 224. Frazer bases his view on a rather scattered but very suggestive collection of data. De la Saussaye (p. 98) discussing "animal worship," says, "Among the northern races of Europe, Asia, and America, we must mention the bear." There is practically no documentation for this statement. Cf. N. W. Thomas, 502-4.

<sup>48</sup> Czaplicka (4), p. 495, (6), p. 138. "Throughout Siberia the bear is either actually an object of worship or at least of reverence which approaches an attitude of worship." Labbè, p. 228: "all the people of Siberia, although different, have a similar veneration for the bear." Middendorf IV, p. 1616: "Überall in Sibirien erweist man dem Bären göttliche Ehre."

<sup>49</sup> Mitras e.g. refers to the bear worship "which prevails among the Ainos, the Ostiaks, the Tunguses, the Finns, and other hyperborean peoples of the Old World. . . ." Comparetti (note pp. 305-6) from the depths of his Finnish studies

drawn to specific customs, similar in North America and Asia,<sup>50</sup> as well as to the general attitude of respect manifested toward the bear in both regions,<sup>51</sup> while to one early writer, at least, certain American customs immediately suggested Finnish analogies.<sup>52</sup>

Taken singly, the analogies in bear rites and beliefs pointed out by any one of the foregoing writers are, on the whole, of a rather superficial order. They are an excellent illustration of a hasty grouping of attitudes and practices, based, it is true, upon observed similarities, but at the same time drawn largely from unanalyzed fragmentary data. Collectively, however, these observations serve to draw attention to the very significant fact that many of the native tribes of North America, Asia, and Europe do exhibit toward the bear an attitude which, in contrast to that manifested toward other creatures, is more or less unique in character. Testimony to this effect is available in the accounts of explorers, travelers, and ethnologists who have sojourned with these peoples and there is a surprising agreement in the statements of those who have had only the most superficial contacts with the natives and of those who give us accounts based on lengthy residence and intensive study. Of course the terms used to describe the psychological attitude of these aborigines toward the bear vary considerably. Some describe it as respect, others as reverence, veneration, or worship, but one and all are in agreement that, among the animals, bears are held in special esteem. To this extent Frazer's statement is well supported.

It seems justifiable, therefore, to subject to a more intensive investigation than has heretofore been attempted, the beliefs

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draws upon data from the Voguls, Votyaks, Samoyeds, and Lapps to help elucidate the beliefs and customs pertaining to the bear in the Kalevala. Pallas (Trusler, p. 317), referring to the Ostyak, says, "Some such customs are prevalent in Lappland. All, or most of these superstitious customs, are the same among all old Siberian pagans."

<sup>50</sup> Morice (4), p. 171-2, notes that it is customary to place the skull of a bear upon a stump or tree out of the reach of defiling animals, as does Fallaize, p. 879.

<sup>51</sup> Fallaize, p. 879, Frazer, de la Saussaye, op. cit.

<sup>52</sup> Tailhan, the editor of N. Perrots' *Memoir* (See Blair, I, p. 132): "The customs of Finland also establish the great honors paid to the bear slain by the hunters—a usage doubtless originating in various countries from the terror which this powerful animal inspires, and from the benefits obtained by the family from hunting it."

and customs in the tribes which superficially seem to exhibit such a homogeneous attitude toward the bear. How, indeed are we to account for such notable similarities in psychological attitudes toward a particular animal over such an enormous extent of territory? Are we to believe that the human mind has everywhere reacted to the characteristics of the genus *Ursus* in a similar or even identical fashion, or are other factors of a different order responsible? And if so, what are they?

Fortunately, we do not have to depend upon mere statements of attitude toward the bear, suggestive as these may be. A much more tangible basis of approach to the fundamental problems involved is afforded by the complex of customs of which bears are the object among the peoples who inhabit the regions already mentioned. The manner in which the animals are hunted, certain rites observed in connection with the carcass and the consumption of the flesh, as well as the conventional treatment of the bones, furnish us with objective data which may be analyzed and compared in the various tribal groups and cultures. It is the similarities which have been noted in many of these practices, as well as the general esteem in which the animal is held, that suggested the grouping of peoples, pointed out by the writers mentioned.

It is our intention, therefore, to survey bear ceremonialism in its widest aspects among the peoples of both North America and Eurasia, with a view to determining the geographical distribution of genuine similarities in customs and beliefs, as well as to indicate the significant differences which are to be found in the various tribes and culture areas.

In a broad comparative survey such as this, there are, of course, inherent difficulties and limitations. Perhaps the most outstanding of these is the unevenness of the data available for different regions. This makes any interpretation of the evidence from a broad historico-geographical standpoint exceedingly tentative. At the same time it must be borne in mind that the customs and beliefs under review have suffered, in some regions, a total eclipse by the rapid diffusion of European ideas in the last few centuries. In many cases this reduces our sources of information to literary records, which can no longer be supplemented by field inquiry.

The Finns offer an excellent illustration of this condition. But, there are other peoples who either still practice some of the customs discussed, or retain a knowledge of them. It is from such peoples that future field investigations may yield information which will serve to support or contradict my conclusions, and one of the purposes of such an introductory survey as this, is, I take it, to stimulate just such lines of inquiry.

A further difficulty involves the presentation of the evidence. When dealing comparatively with material culture, photographs, sketches, or a mere statement, together with the proper documentation, is sufficiently convincing. When one is dealing with human activities, however, the matter is far less simple. Consequently, while in the text I have stated that this or that is done, in the footnotes I have often quoted at length the observer's statement, so that the reader may be furnished with some material for independent judgment without having to consult the sources in every case. In my condensation of the Ainu and Gilyak ceremonies, I have similarly given liberal quotations and what I believe to be a fairly exhaustive documentation of the subject. This procedure will, I hope, counteract any unconscious bias in the selection of the material discussed in the text.

So far as conscious selection goes, I have, to some extent, been guided by the data available, insofar at least as attention is primarily focused upon certain outstanding groups of customs and beliefs. The material collected upon these subjects is treated in separate sections, from the comparative viewpoint. In each case the data for the peoples of northeastern North America are given first. This is followed by moving westward to other American tribes and then passing to Asia, where, after a review of the customs of the northeastern peoples, we finally turn to the inhabitants of western Siberia and northern Europe.

As the rites connected with bears (the periodic festivals of the Amur-Gulf of Tartary region excepted) are performed ordinarily as an integral part of the hunt, I have led up to the more distinctly ceremonial features connected with the dead bear through a discussion of the hunt itself, the peculiar linguistic synonymy which so many peoples have for the beast, as well as the custom of

talking to the animal in a conciliatory manner. These features throw considerable light upon the subjective side of our general subject and their geographical distribution is also of significance.

I have, moreover, endeavored to show in how far the customs surveyed are distinctive of the attention paid to bears and in how far they are also associated with other animals in the various cultures.

Finally, I shall attempt an interpretation of bear ceremonialism considered in its widest historico-geographical aspects. Its association with a number of other culture traits of Eurasiatic-American distribution will be pointed out, a fact which will afford us a better clue to possible historical deductions than any interpretations in psychological or economic terms.

#### GEOGRAPHICAL DISTRIBUTION OF BEARS

In order to obtain a faunal perspective in approaching our problem, let us first turn for a moment to the essential facts regarding the distribution of bears throughout the world and the probable history of the family. The close relationship of the species inhabiting Eurasia and North America since Pleistocene times is specially worthy of note.

The geographical distribution of the Ursidae is almost exclusively Holarctic. "There is but one African species, confined to the northwest corner of that continent, and one in the Andes of Peru and Ecuador, all others belonging to Eurasia and North America."<sup>53</sup> The family is presumably of Eurasian origin and may have reached America in the lower Pliocene, but it is rare until the late Pleistocene,<sup>54</sup> the period of most importance in the gradual displacement of ancient American types by mammalian migrations from Asia.<sup>55</sup> In fact, the Boreal mammals of North America and the northern zone of Eurasia resemble each other so closely that

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<sup>53</sup> Scott, p. 548. The sun bear (*Ursus malayanus*) and the Tibetan blue bear (*U. pruinus*) are southern species which might be added. For species assigned to other genera of the family, see Beddard, pp. 442-4.

<sup>54</sup> Scott, p. 518, cf. Trotter p. 4.

<sup>55</sup> Osborn (2), p. 438. Trotter pp. 3-5.



some authorities<sup>56</sup> consider the area of their distribution as constituting a single primary region. "It is thus probable," says Allen,<sup>57</sup> "that most of the more northern types of mammal life on the two continents are the slightly modified descendants of types which formerly had a continuous circum-arctic distribution, which have become slowly differentiated, probably mainly since since the disruption of the former land connection at Bering Straits."

In North America there are upwards of twelve species of bears north of Mexico, the most important and widely distributed of these being *Ursus Americanus* (the common black or brown bear) and *Ursus horribilis* (the grizzly bear).<sup>58</sup>

In Siberia there is *Ursus arctos*,<sup>59</sup> which resembles the grizzly and big brown bears of America. The members of this species chiefly inhabit the forested regions, appearing, however, on the tundra in summer to feed on berries and moulting water fowl and sometimes ascend into the mountains to escape the mosquitoes and to hunt wild reindeer.<sup>60</sup> The European brown bear belongs to the same species.<sup>61</sup>

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<sup>56</sup> Merriam and others. A similar statement might be made regarding the Arctic fauna of North America, Asia and Europe, in which zone the characteristic mammals differ more from the forms farther south than from each other.

<sup>57</sup> pp. 182-183; cf. Scharff, p. 85.

<sup>58</sup> Hegner, p. 652. For the distribution of the American species, see Thompson-Seton, maps 55 and 56. Merriam, relying almost exclusively on cranial characters, lists fifteen species in the grizzly-brown bear group alone.

<sup>59</sup> Anthropologically speaking, this species is first identified during Chellean and early Acheulean times (Osborn (1), p. 147). In the opinion of some authorities (see Beddard p. 442) a large number of species of bears separately distinguished may better be regarded as "slight modifications" of *Ursus Arctos*, e.g., "the grizzly of North America, the Isabelline Bear, the Syrian Bear, a bear from Algeria, the Kamschatkan and Japanese bears, besides the extinct *Ursus fossilis* of Pleistocene caves." For a good diagrammatic representation of the relationship of Pleistocene bears, see Obermaier, fig. 18.

<sup>60</sup> Jochelson (2); p. 13.

<sup>61</sup> Flower and Lydekker, p. 559, Beddard, p. 442.

## HIBERNATION HABITS OF THE SPECIES AND ASSOCIATED FOLK-BELIEFS

The hibernation of the bear during the winter months is a distinguishing habit of the animal<sup>62</sup> and the fact that the beast collects no food to sustain itself during this period has evidently impressed the mind of northern hunters everywhere as a mysterious phenomenon. As an old Abenaki said to me, "A bear is wiser than a man because a man does not know how to live all winter without eating anything." This fact is explained over a wide area by a curious bit of folklore. It is said that the bear gets nourishment by sucking its own paws.

The earliest records of this belief are to be found in two accounts dating from the eighteenth century. Charlevoix, after describing in some detail the manner in which the bear hibernates and assuring us that the animal neither eats nor drinks during this period says, "qu'il tire alors de ses Pattes, en les lèchant, une substance, qui le nourrit, comme quelques-uns l'ont avancé: c'est sur quoi il est permis a chacun de croire ce qu'il voudra."<sup>63</sup>

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<sup>62</sup> Flower and Lydekker, p. 559. Ernest Thompson Seton discusses the hibernation habits of North American bears. Black bear, II, pp. 1064-1066. Dens "vary from a deep, snug, sheltered natural cave in the rocks, to a hollow tree or a hole under an upturned root. Sometimes the bear digs a den in the level ground . . . and sometimes it makes a bed under a windfall of logs and brush, or in a dense thicket. But, wherever chosen, it is sure to be a dry place where the snow will gather and lie deep all winter." Adult bears never den together. Grizzly, Ibid., p. 1046; Wright (2), pp. 79-82; Wright (1), pp. 211-213, the Polar Bear (*Ursus maritimus*) "dig holes in which they remain for sometime, but there is no hibernation" (Beddard, p. 443). This species is sometimes referred to as a separate genus, *Thalarctos maritimus*, but this is not necessary (*ibid*).

<sup>63</sup> p. 117. The quotation is from Letter VI and is dated March 1721 at Three Rivers. From internal evidence it seems fairly certain that Charlevoix is describing the hunting practices and beliefs of Algonkian peoples, but it is impossible to localize any of his statements. That he knew something at first hand about the eastern tribes is not to be disputed but it is also evident that he did not hesitate to draw upon the accounts of other observers, when convenient, and without acknowledgment. In one passage, e.g. (p. 118), where he describes certain practices connected with killing a bear, it is abundantly evident from the sequence of ideas, the details given, and even the phraseology, that Charlevoix has practically copied an earlier account of Perrot (Blair I, p. 129) who is describing these observances among the Central Algonkians. In support of our assertion we have Tailhan's statement (see Blair, I, p. 29) that Charlevoix had access to Perrot's MS. although the latter was not published until 100 years

Lahontan refers to the same belief as follows: "Many People will hardly believe that these animals can live three months in such Prisons, without any other Food but the Juice of their Paws which they suck continually: and yet the matter of Fact is undeniably true."<sup>64</sup> Lahontan does not specify any particular tribal group to which this belief pertains but refers to it in his general account of the Indians. We know that he was well acquainted with both Iroquois and Algonkians, from the region of the St. Lawrence River to the Great Lakes. It seems permissible, therefore, to infer from these two early references that the belief referred to had a considerable geographical prevalence among the eastern and perhaps central Algonkian tribes in the eighteenth century. It may have been shared by the Iroquois, also. This fact is, to some extent, borne out by the contemporary provenience of the notion among the Montagnais-Naskapi,<sup>65</sup> Tête de Boule,<sup>65a</sup> Micmac,<sup>66</sup> Penobscot,<sup>67</sup> Malecite,<sup>68</sup> and St. Francis Abenaki<sup>69</sup> peoples and a somewhat analogous belief

after Charlevoix's work had appeared. As we do not find any reference to paw sucking in Perrot we may, perhaps, assume that this was picked up orally by Charlevoix himself and, if so, probably refers to eastern Indians and not to central Algonkians, but of this we cannot be certain.

<sup>64</sup> Voyages, II, p. 484.

<sup>65</sup> Baptiste Picard (Naskapi of Seven Island), Pitabano (Ungava Band). As evidence the former said that when the animals come out in the spring their paws are very tender; also related the story of a child found by a bear. The animal took it to live with him for three years. The child received its nourishment during the winter in the same way as the animal. Jos. Kurtness attributed the same belief to the Mistassini Indians.

<sup>65a</sup> Information, D. S. Davidson. They say the animal eats the skin off the palms of its fore-paws.

<sup>66</sup> Communication, W. D. Wallis.

<sup>67</sup> Information, F. G. Speck from Hemlock Joe, who said he did not believe it, but everyone said it was so. It is also said that bears hold the soles of their feet toward the entrance of their dens to keep people from finding them.

<sup>68</sup> Information, F. G. Speck from Gabe Paul. There is a well-known saying among these people, as well as the Penobscot, which illustrates the prevalence of the belief. To a person who has wasted his time during the summer and saved up nothing for the winter it is often said (Penobscot-dialect), "*nodad a man pad' in padji' pun*," "Let him suck his paws all winter." The above informant also stated that the lumbermen of the Maine woods give credence to the idea. It seems likely that their contacts with the Indians represent the source of the belief.

<sup>69</sup> Louis Gill (formerly chief and now deceased) told the writer that the bear

among the Caughnawaga Iroquois.<sup>70</sup> For the Saulteaux,<sup>71</sup> a similar belief is to be found in Peter Grant's account (ca. 1804). An early description of the Ottawa<sup>72</sup> refers to a variant notion that the bear gets nourishment by sucking its navel instead of its paws. The belief in paw sucking is also recorded from Alberta (Canada), possibly for the Cree<sup>73</sup> and from the headwaters of the Columbia River.<sup>74</sup>

In Asia we have this belief reported for the Kamchadal<sup>75</sup> and

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lives on its own fat by sucking its paws. There is a foam observable on the back of the animal's paws which gives evidence of it. Gill had a cub once which did this continually, accompanied by a sort of "purring." When a lot of foam had accumulated he swallowed it. If a bear did not do this his stomach would dry up as there is never anything in it when the animals are found early in the spring. The rectum is stopped up during the winter by "*K'puhigun*." As soon as the animal leaves its den this "stopper" is passed and the creature is then ravenously hungry. Among the Montagnais-Naskapi it is said that the bear "places a dottle of moss and earth in its rectum to prevent soiling the lair (MS. F. G. Speck).

<sup>70</sup> The evidence of this comes from the notes of Dr. Speck who once heard Margaret Monick (of Mohawk descent) say to her son, "You ain't doin' nothin'." His reply was, "Well, I'll be like the bear—stay in a hole and suck my heel." Charlevoix, it may be noted, visited the reservation on which these people still live.

<sup>71</sup> Masson. As the book is not easily accessible I quote the full statement, p. 345. "The Indians assert, as an undoubted fact, that during these long months these animals take no nourishment of any sort but what they derive from licking their paws, and yet turn out in the spring just as fat as they were when they entered their winter quarters."

<sup>72</sup> N. Perrot quoted by Blair, I. 49, and note 22, p. 48, in which Tailhan says that Perrot is here speaking of the Ottawa.

<sup>73</sup> Somerset, p. 76. Reference is also made to the fact that in the early spring "the under surface of the foot is sore and inflamed." There is not any assignment of the belief in this case to a particular tribal group. The author traversed the region from Ft. Edmonton (Alberta) to Ft. George (B.C.) with a Cree guide and met Beaver and Sekanis bands. He may have heard it either from Algonkians, Athabascans, or both.

<sup>74</sup> Probably a Salish speaking people. See de Smet's reference in a letter dated Sept., 1845, from this region. He says that the bears hibernate for four months and that the Indians maintain that they suck one paw each month (Thwaites, Vol. 29, p. 207).

<sup>75</sup> Krashenninnikoff, p. 103. As nothing but a "frothy slime" is found in the stomachs of bears killed in the spring it is thought that the animal "supports himself by sucking his paws." Also James Cook p. 1079.

Ainu;<sup>76</sup> in Europe for the Lapps,<sup>77</sup> in an account dating from the middle of the eighteenth century.

Although the scattered distribution of this belief necessitates caution in drawing any conclusions from the data at hand, it seems to me that its provenience is of positive significance. As will appear in the course of this study, there is a rough correlation between the distribution of this bit of folklore and the occurrence of bear ceremonialism; that is to say, although the belief in question is not reported from *all* the regions where the latter is found, it is *only* recorded from the general districts where some such practices are found *and nowhere else*.<sup>78</sup>

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<sup>76</sup> Batchelor (1), p. 472. Some of the Yezo aborigines claim that when bears come out in the spring their feet are so tender that they cannot move far from their dens. Others deny this (p. 473). There is some variety in the notions held regarding how they keep alive. The author says that although many bear hunters assured him that the dens of the beast were always perfectly clean inside, yet there are beliefs current which explain matters by saying that the animals "store up fish and vegetables in their dens, and devour them in the winter; others that they eat earth; and others, again, that before they return to their dens in the autumn, they open up ants' nests by scratching them, and trample upon the insects, thus causing thick layers of ants and their eggs, all mashed up together, to adhere to their forefeet. They lick their feet when awake during the winter months . . . and so keep themselves alive and fat."

Torii, p. 255, relates a narrative of the Kurile Ainu regarding the adventures of a hunter who lost his way in the woods and took refuge in a bear's den. He lived for some time with the animal, receiving nourishment and drink by sucking the bear's paws.

<sup>77</sup> Leems (see Pinkerton, vol. 1, p. 415): "It is a matter well known and ascertained through the regions of the north that a bear, during the winter, lies concealed in his den and that he is there sustained by no other aliment than a certain milky juice which he sucks from his fore paws with a growling." Acerbi repeats this statement almost word for word. Instead of "region of the north" he cites it as "a prevailing opinion in the countries of northern Europe." He does not specify them, but, taking the statement at its face value, we might be led to suppose that both authors intended perhaps to include other peoples beside the Lapps in their generalization.

<sup>78</sup> As a check upon the peculiar northern distribution of the belief it may be well to state here that consultation with Dr. J. R. Swanton and Dr. F. G. Speck, as well as a search of the literature, has not revealed any trace of it among the southeastern Indians. Inquiry among survivors of the Virginian tribes has yielded a similar negative result. Chief Bass, e. g., of the Nansamun tribe, whose present location is near the Dismal Swamp, never heard of such a notion, although even to this day bears are constantly hunted. (Even in this southerly region bears hibernate about four weeks in January or February, crawling into a hollow tree.) Dr. E. C. Parsons has never

In some cases one might suspect European influences as the source of the belief,<sup>79</sup> but in view of the fact that such early observers as Charlevoix and Lahontan in America and Captain King and Krasheninnikoff in Siberia (Kamchadal) recorded it as a native notion, this seems unlikely. It would be strange if they had taken the trouble to record such an item in their correspondence if it had not appealed to them as novel and un-European. We should expect, moreover, to find its distribution much wider in extent.

If, on the other hand, we consider the possibility that we have here an example of convergent development in the growth of a belief, a parallel attempt to explain why the bear can live during its hibernation without food, it seems to me that we are delivering ourselves up to an improbable theory of psychic accidents. To those who incline to this view we might put the question: Why is it that this belief is limited to an area so much smaller than that in which bears hibernate? Furthermore, if we resort to independent development as an explanation, why not assume that the belief arose independently in *every* case? From this standpoint, even admitting a limited diffusion, at least four centers of origin must be hypothesized (eastern North America, western North America, northeastern Siberia, northern Europe). In my opinion it seems much more likely to be an ancient notion which is associated with other customs connected with bears in both the Old World and the New.

### THE BEAR HUNT<sup>80</sup>

#### TIME OF ATTACK

Bear hunters in both the New World and the Old show a common tendency toward the adjustment of their hunting prac-

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heard the belief expressed by any of the peoples of the Southwest and as far as I have been able to discover, in consultation with Drs. Boas, Sapir, Barbeau, and Frachtenberg, it does not occur among the North Pacific Coast tribes.

<sup>79</sup> Mr. Skinner has heard it from whites, as has Mr. Cadzow in Loucheux territory, but the borrowing in these cases may be in the opposite direction as seems to be the case in Maine, where lumbermen who have long been in close touch with the Indians entertain the idea.

<sup>80</sup> As we stated in our introductory discussion, the hunting of an animal is, in many primitive cultures, a matter which has its magico-religious side as well as

tices to the hibernatory habit of the animal. The favorite time to hunt the beast is toward the end of the winter, or in the early spring, while snow is still on the ground.<sup>81</sup> The den of the animal

its practical aspect. Consequently, the preparation for the hunt frequently imposes activities upon the hunter which are related to the former series of ideas. Observances and restrictions of this character may even apply to certain members of his family. Such customs vary widely, of course, from group to group and usually are not exclusively associated with any particular animal. The Labrador Indian, e.g., must have favorable dreams before he hunts any animal and the sweat lodge is also a necessary preliminary to bear hunting in this region and among the Tête de Boule although not characteristic elsewhere. Among the Nootka there are a long series of secret rituals which are performed in order to secure power and success in various kinds of undertakings. Hunting is one of these and there are different rituals for different kinds of hunting. "Most of them are accompanied by face painting and prayers and all involve symbolic activities (sympathetic magic) and continence, fasting, rubbing with hemlock branches, and keeping awake for days and nights." The ritual used for bear hunting is specifically individualized, but at the same time follows the characteristic "pattern" (I am indebted to Dr. E. Sapir for the Nootka information.) Because of the lack of unique preparations for a bear hunt, which is characteristic of so many peoples, and the entire absence of data among others, I have not drawn this topic into our discussion for it throws practically no light on our central problem and should receive independent study from a different point of view.

<sup>81</sup> This holds good for the eastern and northeastern Algonkians (cf. Denys, p. 433) who consider it the most advantageous time to hunt bears. For the northern Algonkian a similar practice prevailed; eastern Cree and northern Saulteaux (Skinner [1], pp. 27, 163), northern Cree (Thompson, p. 114), Bungi (Skinner [4], p. 510). The central Algonkian formerly followed the same custom; Menomini (Skinner [5], pp. 187, 189), Kickapoo, Sauk, Prairie, Potawatomi, (verbal information, Mr. Skinner). Among the latter certain men are said "to have power over bears" and "were able to locate their dens in winter when the animals were hibernating" (field notes, Skinner). Bear hunting is a thing of the past among these peoples today, according to the same investigator, and consequently it is difficult to get an accurate account of their hunting customs. The Menomini say (*op. cit.*) that the animal was hunted in the winter because at other seasons it was only met by accident and kept close to the heart of the forest. In Hearne's time the tribes of northern Canada also hunted the bear in its winter retreat (pp. 344-5) cf. Morice (3), vol. 5, p. 116. Mr. Jenness has informed me that this is the practice of the Carrier. According to Mr. Cadzow the Loucheux sometimes sought bears in their dens but this was not a regular practice. Dr. Boas tells me that the tribes of the northwest coast sought out the animal at this season although traps were utilized also to a considerable extent. See also Krause, p. 181 with reference to the Tlingit. cf. northern Maidu, Dixon (3) p. 193.

For the Koryak and other Siberian peoples we have Jochelson's statement (3) p. 555. "In winter the bear is attacked in its den in the manner common throughout Siberia." He says that "in the spring when the bear leaves its lair, it is only killed in self-defense." It is then lean, the skin useless and the animal very dangerous. (*Ibid.* 554). cf. Allen's statements for the Koryak and Tungus (p. 166); Batchelor (p. 473)

can then be located by the discoloration of the snow around its breaking hole or by the vapor arising from it. Sometimes the animal is tracked the previous fall, and its refuge marked, as bears do not usually den until after the first fall of snow. Or the hunters may know the places where the bears of their habitat take refuge year after year. The animal is thus rudely disturbed in its winter sleep before it has a chance to emerge from its retreat. The time of the attack is evidently part of an ancient hunting complex which has grown up around the animal<sup>82</sup> and with it, in a number of tribes, there seem to be associated some of the most conservative customs and beliefs. As will presently appear, for example, this method of hunting the bear was coupled with the use of certain weapons and a manner of approach which even the introduction of firearms and steel traps did not entirely displace.

#### METHODS AND WEAPONS

##### *North America*

*Eastern Woodlands Area.*—When a bear is discovered in its winter retreat, or attacked in the woods, it is customary among the Algonkian tribes to dispatch the animal by means of a spear or an axe.<sup>83</sup> Although one might expect that upon the introduction of firearms and steel traps, such methods would have fallen into almost immediate decadence, such was not actually the case. Contemporary practice, as well as traditional testimony indicates

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Howard (pp. 114-117) and von Siebold (p. 21) for the Ainu, and Niemojcuski (i p. 227) for the Tungus and Yakut.

Scheffer says the Lapps located the beasts' den in autumn by tracing the animals' tracks after the first fall of snow, so that in the spring they could go directly to it (p. 38) cf. Pinkerton (Leems) n. 415. Johan Turi gives a realistic account of the methods employed in bear hunting. See p 116 *seq.* for a description of how the animal is attacked in its winter refuge.

<sup>82</sup> The nocturnal habits of the bears (Nelson, pp. 437, 440) may have had something to do with this as it would only be by chance, and perhaps infrequently, that they would be met in the woods. Seeking them out in their dens was a procedure which made success almost a certainty and the bear at this time was in a relatively weakened condition.

<sup>83</sup> The only reference I have discovered to the use of the bow and arrow in bear hunting by Algonkian tribes is the statement of Denys (p. 433) for the Micmac that when discovered in the open this weapon was used, but even in this case the animal was finally dispatched with an axe.



the use of the more primitive weapons in many instances, even when guns are available. This appears to be due to an inhibition which, although difficult to define except in rather vague terms, seems, nevertheless, to be connected with the whole ideology of which the bear is the focus. It is simply the feeling, conserved from a remote past, perhaps, that in killing a bear the most appropriate weapon for the task must be one of an aboriginal type. The Montagnais-Naskapi as well as the Penobscot, for example, consider it proper to strike the animal with an axe as it emerges from its den.<sup>84</sup> In the old days the latter people say that sometimes the bear would be attacked in the open by three or four hunters, armed only with their knives lashed on canoe poles or staves. After the animal was brought to bay and surrounded, one of them would throw a freshly cut balsam branch into the beast's clutches. This served to confuse the bear who would start to maul it, giving the hunters time to run him through. If the animal turned in one direction a man from the opposite side would attack, and so on until the bear was overcome.<sup>85</sup>

Among the northern Saulteaux there is a specific prohibition upon shooting bears in their winter lairs. Custom prescribes that the animal be killed by a blow on the head with a club as it emerges from its refuge.<sup>86</sup> Among the Cree, "in the old days, the hunters engaged the bear in hand to hand conflicts and clubbed it to death, for the bow and arrows were not considered strong enough weapons." "Even at present," Skinner says, "bears caught in steel traps are sometimes killed by striking them over the head with an axe, although they are usually shot."<sup>87</sup> For the central Algonkian generally, there is traditional information, so Mr.

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<sup>84</sup> Information F. G. S. (ms). Some of the Naskapi hunters however, keep a cocked rifle at their side in case of an emergency.

<sup>85</sup> This method was described to Dr. Speck by Joe Francis, a Malecite, who was married to a Penobscot woman and lived at Old Town, Me. The Micmac are said by Denys (p. 433) to have used the spear in bear hunting and the St. Francis Abenaki recount the use of a knife lashed to a pole.

<sup>86</sup> Skinner (1), p. 163.

<sup>87</sup> *Ibid.* (1), pp. 26-7, p. 73. "The Indians affirm that when standing on his hind legs neither the polar nor black bear can well turn on the right side, making it comparatively easy for an agile man to run in closely and stab it to the heart."

Skinner tells me, to the effect that good sportsmanship dictated that the bear should be attacked only with weapons such as the spear or axe.<sup>88</sup> There was no taboo upon other instruments of the chase, but, because the bear was considered such an unusual sort of animal, it was thought that the use of these weapons was the manly way of attacking the beast. One met it on more common ground, as it were, by this manner of combat.

Consequently, we may infer that before the advent of firearms and even in historic times,<sup>89</sup> the method of clubbing or spearing the bear in its den or attacking it in the open at close quarters was not an uncommon practice in many Algonkian tribes. The Menomini, for instance, considered that to engage a bear single-handed was considered "as brave a deed as to slay an enemy," and adventurous youths would show their mettle in this way.<sup>90</sup>

Among the Iroquois a similar method of killing bears was in vogue. They considered that there was only one proper method to be employed in killing a bear. This was by a blow from a war club on the animal's forehead. Archeological evidence supports both the wide prevalence and the antiquity of this procedure, as practically all of the bear skulls found in the Iroquois horizons show certain evidence of it.<sup>91</sup>

*Mackenzie Area.*—For the tribes of northern Canada, specific information is lacking, but we may refer to Hearne's general

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<sup>88</sup> It is Skinner's impression that traces of the same attitude are to be found among the Cree. Cf. with statements above.

<sup>89</sup> Traps of an aboriginal variety were, of course, used as well, upon occasion, to capture bears. Cf. Skinner (5), p. 187-9, for the Menomini. The Wabanaki peoples and the northeastern Algonkians sometimes used dead falls.

<sup>90</sup> Skinner (5), p. 187, 189.

<sup>91</sup> Information A.C. Parker and A. Skinner. The latter, e.g., recounts the demonstration of a bear killing of the old-fashioned sort, told to him by William Blue Sky, a Seneca, now deceased. This Indian said that years ago when working in the lumber district of Pennsylvania a bear came within sight of their camp. A hue and cry was raised and another Seneca, a rather old man at the time, said he would show them how the Indians used to kill bears. The animal was brought to bay at the foot of a tree with the help of dogs, at which point the Seneca made a speech to the animal (the nature of which is unknown), before clubbing him to death with a tomahawk. The old man then went on to tell them that the Seneca considered that it was always proper to club a bear to death in this way.

statement that in hunting the bear the natives "blocked up the mouth of the den with logs of wood, then broke open the top of it, and killed the animal with a spear or gun." Hearne also says that he heard that a similar method was used by the Kamchadal<sup>92</sup> and significantly adds that the Indians considered the use of a gun under these conditions both cowardly and wasteful. This seems to suggest a comparable subjective attitude to that previously noted for the Algonkians. Sometimes the natives he refers to, would fasten a snare around the animal's neck and, drawing its head close up to the hole they had made in the top of the lair, would finally dispatch the beast with a hatchet.<sup>93</sup> The Carrier<sup>94</sup> used the spear in attacking bears, as did the Loucheux. Among the latter it was esteemed an especially brave act for two or three men to attack the brown bear (not the black) in this manner.<sup>95</sup> The bow and arrow was also employed by the Carrier.

*Plateau and Northwest Coast Areas.*—The use of trapping devices for killing bears<sup>96</sup> and the custom of seeking them out in their winter dens<sup>97</sup> seems to characterize the bear hunting customs of the natives of the North Pacific Coast and the Salish tribes of the Plateau region. So far as the use of a lance in open combat is

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<sup>92</sup> Hearne's information was undoubtedly correct as we find other northeast Siberian tribes doing so (e.g., the Koryaks and Chukchi, see *passim*). Cf. Turi's account of the Lapps, p. 117, who also proceed in the same manner. Morice (3), vol. 5, pp. 116-7, says that this method was employed in the case of the grizzly but in hunting the less formidable black species the animal is "dislodged from its lair by especially trained dogs acting as ferrets, and then killed with any weapon at hand." If the bear cannot be gotten out by this method "fire and smoke is then resorted to, always with the most satisfactory results." Grizzlies, he says, were formerly killed by traps, "huge contrivances made of green timber, in the shape of the side of a roof yielding to the action of some figure-of-four device" (p. 126). These were evidently similar to the bear traps of the North Pacific Coast.

<sup>93</sup> Hearne, pp. 344-5.

<sup>94</sup> Information, Mr. D. Jenness (letter Oct. 27, 1924).

<sup>95</sup> Verbal information, Mr. Donald Cadzow (Museum of the American Indian, New York).

<sup>96</sup> See Teit (1), p. 226 (Lillooet); (2), p. 522, (Shuswap); (4), pp. 247, 249 (Thompson); Jewitt, p. 97 (Nootka). For the Haida, Curtis, XI, p. 131 (There are no grizzlies on the Queen Charlotte Islands, Swanton [2], p. 416). For the Kwakiutl, Boas (4), pp. 509-10, Curtis, v.x, p. 33. The methods employed by the Tlingit are described in the text.

<sup>97</sup> See previous note where authorities are given.

concerned, which would compare with the method described for other American peoples and a large number of Siberian tribes yet to be discussed, I have found only a single reference to this procedure in killing the bear.<sup>98</sup>

In his work on the Tlingit, Krause quotes Holmberg<sup>99</sup> to the effect that bears were hunted only infrequently and then only in case of necessity, owing to the fact that they were considered to be metamorphosed (*verwandelten*) men. Krause comments that this was not true in his time for bears in general, that is to say, the brown bear was avoided, but the black bear was zealously hunted. He emphasizes the seasonal changes in procedure used in killing the latter. It was sought with dogs in its winter den, which was located by the scratches which the animal had made on the bark of the trees in the neighborhood. In summer it was the custom to lie in wait until about sunset, for at this time of day the bear would descend from the mountains to the clearings in the forest (*Waldeslichtungen*) in order to feast upon the young verdure there.<sup>100</sup> In the autumn, when the bears would come to the streams to catch salmon during the night, deadfalls of planks would be constructed near their haunts in order to kill them.<sup>101</sup>

*Eskimo.*—The American Eskimo kill the polar bear in the open by spearing the animal with a harpoon or a knife lashed to the end of a pole. The animals are usually run down on foot with the help of dogs.<sup>102</sup>

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<sup>98</sup> Curtis, X, p. 35 says a Wikeno (Kwakiutl) informant born about 1854 has seen a grizzly "killed with a spear, and declares that this was not a rare feat for some men, though few could accomplish it."

<sup>99</sup> *Ethnographische Skizzen über die Völker des Russischen Amerika* (Acta Societatis Scientiarum Fennicae, vol. iv, p. 29). I have not been able to consult this work myself.

<sup>100</sup> When bears were killed in the open the bow seems to have been the typical weapon employed (except, of course, European firearms in recent times). See references in note 96.

<sup>101</sup> Krause, p. 181.

<sup>102</sup> Jenness, p. 152; Boas (2), p. 507; Nelson (1) writes, p. 121, "Formerly, after bears had been brought to bay by dogs, they were killed with stone or iron pointed lances, and, indeed, the people of the Siberian shore still kill many in this old fashion." Murdock (2), p. 263, only refers to the polar bear being shot with a rifle.

### *Eurasia*

*Paleo-Siberians.*—In northeastern Siberia, according to Nelson, the natives attack the polar bear in the spring with "short-hafted, long-bladed lances," and the help of dogs. The latter bring the beast to bay, "and the hunter, watching his opportunity, runs in and thrusts the lance through the heart."<sup>103</sup>

The Koryak,<sup>104</sup> when attacking the bear in its den, and also the Chukchi,<sup>105</sup> when hunting the brown bear, block the entrance of the animal's retreat with logs.<sup>106</sup> Then they break in the roof and stab the beast to death with spears, or shoot it. Sometimes snares are used to catch bears. In summer and autumn, the Koryak now kill bears with firearms, whereas formerly they used the bow and arrow. "Not infrequently," however, "they attack the bear with the spear," dogs being used at the same time to worry the animal from the rear.<sup>107</sup>

Among the Ainu, guns, spring-bows, or pits set in the trail of bears, the bow and arrow, spears and knives, are reported.<sup>108</sup>

Nevertheless, the traces of an *ancien régime* in which bear hunting was an undertaking requiring the utmost skill and courage, are not entirely lacking. It is well expressed in the native saying, "He who undertakes to catch a bear must not cry over his wounds."<sup>109</sup> Consequently, bear hunting was greatly exalted and the typical weapons of the older era were a long knife and a

<sup>103</sup> Nelson, p. 436. No specific peoples are mentioned. We may suppose that he refers to the Siberian Eskimo and Chukchi. Bogoras, e g., tells us, (2) p. 141, that when a polar bear is sighted the Chukchi will release two or three dogs from the team. When the animal is overtaken and held at bay, it will be speared with a lance, or shot.

<sup>104</sup> Jochelson (3), p. 555.

<sup>105</sup> Bogoras (2), p. 142.

<sup>106</sup> This is the practice attributed by Hearne to the Kamchadal. They probably did it although we have been unable to discover any published statement.

<sup>107</sup> Jochelson, *op. cit.*, p. 554.

<sup>108</sup> Batchelor (1), pp. 475-6. See also the Japanese drawings reproduced by Mac Ritchie, pl. 8, figs. 2 and 3. The first shows two Ainu and a dog "in front of the bear's den, at the moment when the bear, emerging from the hole with its cub, is struck in the eye with an arrow. . . ." The second depicts three Ainu attacking a bear in the open. "The animal, struck by an arrow, falls toward an Ainu who receives it on his spear, while a third runs up to his assistance with drawn hunting knife." Cf. von Siebold, p. 20.

<sup>109</sup> Greey, p. 122.

bow and arrow, with which the animal was attacked in its winter refuge.<sup>110</sup> The entrance to the den was sometimes blocked, the animal stirred up, and it was knocked on the head or shot as it attempted to get out.<sup>111</sup> Batchelor says that if the bear cannot be stirred out of its den by prodding, dogs, or smoke, an Ainu armed with nothing but his hunting knife will go in and force the animal to come out. Even when the beast appeared outside, the bow and arrow was not always used, especially when the animal stood upon his haunches at close quarters. "Drawing the knife," an Ainu "rushes into the animal's embrace, hugs him closely and thrusts the knife home into his heart."<sup>112</sup> Or a spear will be held in readiness, and when the beast makes a rush at the hunter, the latter will step back a few paces and allow the bear to fall on the spear. They do not attack the animals directly with spears as it is said bears are quick enough to "parry a thrust with their forepaws."<sup>113</sup> When the bear is ceremonially killed in the bear festival, quite a different method is used which will be described later. It may also be noted here that prior to the slaughter of the beast, as part of this event, the animal is usually shot at with blunt arrows.

According to Ravenstein, the lower Amur peoples, in order not to excite the bear's "posthumous revenge," do not surprise him, but have a fair stand-up fight."<sup>114</sup> A spear, the head of which is covered with spikes, is laid on the ground. A cord is attached to it, and, as the beast approaches, the hunter raises the weapon and the animal becomes impaled upon it. Other members of the party then rush up and kill the bear.<sup>115</sup>

For the Gilyak of Saghalin, Labbé refers to the use of spring-bows and guns, but adds that others who are more courageous only

<sup>110</sup> Batchelor (1), p. 471. von Siebold (p. 21) observes that "Die Bärenjagd besteht meistens im Aufsuchen des Bären in der Höhle."

<sup>111</sup> von Siebold, *op. cit.* Holland, p. 241, also mentions the spring cross bow set up in the woods.

<sup>112</sup> Batchelor (1), pp. 474-5. Cf. Landor p. 272; Dixon p. 45, Howard 114-7.

<sup>113</sup> Batchelor (1) p. 476.

<sup>114</sup> There is a trace here of an attitude of mind analogous to that cited for certain American tribes

<sup>115</sup> Ravenstein, p. 379. Lansdell, without giving this earlier writer credit, quotes him almost word for word in reference to the Gilyak, II, p. 231.

arm themselves with a bow and knife, the latter of which they handle with great skill. The hunters are very proud of their bear-killing record and each man carries in his belt a little stick with a number of notches in it, indicating the number of bears he has killed.<sup>116</sup>

*Neo-Siberians.*—Another Siberian traveler, who spent some time among the Yakut and Tungus, says that firearms are held to be of little use in bear hunting, the favorite weapons being the knife and lance.<sup>117</sup>

The method of bear hunting among the ancient Ostyak is described by Ides who says they are "armed with no other weapon than a sharp iron like a large knife, fixed to a stick, about a fathom long. As soon as they have put up a Bear, they run at him with these short spears . . . ."<sup>118</sup> This is precisely the same sort of weapon, according to Mr. H. U. Hall, which the Limpiisk Tungus told him was the only one with which the bear is hunted. "The hunter awaits the attack of the bear, holding the *arkas* with both hands at his right side, the point presented at the middle of the bear's body. The bear's onslaught is met with a powerful forward thrust to help him to impale himself on the blade."<sup>119</sup>

*The Lapps* looked upon bear hunting as an especially noble pursuit.<sup>120</sup> As one writer puts it: "The skill and address necessary

<sup>116</sup> Labbe, p. 261.

<sup>117</sup> Niemojowski, vol. I, pp. 227-30. The lance consists of a piece of iron on a stick four feet long.

<sup>118</sup> p. 21.

<sup>119</sup> Mr. Hall was a member of the University of Pennsylvania Museum and Oxford Committee for Anthropology Expedition to Siberia in 1915. His informant was Nikipur (Russian name) Hdigir, elder brother of Piroi (Dmitri) Hdigir, headman of the Limpiisk Tungus, who was a noted hunter. The quotation in the text and the following description are from Mr. Hall's notes.

"The *arkas* has a heavy steel blade about eighteen inches long with a sharp point and one sharp edge. The blade is fixed by a tang into a stout shaft about five feet in length. It is also used by hunters to clear the undergrowth or to blaze a trail in the forest to the place where the carcass of a bear, deer, etc., has been temporarily left."

Middendorff pictures two varieties of this weapon and gives a short description with a few words about its use against the bear. He says that the Russians, Samoyed, and Yakut are as much afraid of the bear as the Tungus are bold in dealing with it." (iv, p. 1378).

<sup>120</sup> Pinkerton (Regnard), p. 194.

in the pursuit of the bear and its comparative scarcity in Finmark (1827) render the killing of one of these animals the most honorable exploit a Laplander can perform, and is a constant source of triumph to the successful adventurer. The Laplanders have, besides, exalted ideas of the sagacity and talents of the bear, and treat him, in consequence, with a kind of respect and deference, which they do not pay to any other animal."<sup>121</sup>

According to Scheffer, the ancient Lapps marched through the forest to the bear's den in a conventional order. In front was the hunter who had discovered the lair in the previous fall, followed by the "drum-beater" (shaman?) and next, the individual who was to make the first attack upon the bear. Having arrived at the animal's retreat the bear was killed by means of firearms, bow and arrow, lances,<sup>122</sup> or an axe.<sup>123</sup> If the last mentioned weapon was employed, the bear was first provoked with sticks or fire until it put its head out of the den. It was then quickly struck dead.<sup>124</sup> Johan Turi's account of the use of the spear or lance when attacking the bear in the open quite closely parallels Batchelor's description of the use of this weapon by the Ainu and suggests that of other peoples who employ a similar weapon in killing bears. The animal is not attacked directly, but the spear is held in reverse until the beast launches himself against the hunter and thus becomes impaled.<sup>125</sup>

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<sup>121</sup> Brooke, p. 184; Scheffer, p. 332 says, "Among all the other wild Beasts of Lapland the Bear challenges the first place, being accounted King of the Woods; "Regnard (Pinkerton, I, p. 194) writes that "there is no other animal against which the Laplander wages such a cruel warfare" in order to obtain both the flesh, which is considered a great delicacy, and the skin. The chase of the bear is a solemn action but nothing is more glorious than to kill one, "and they carry evidence of their having done so about with them." One can tell how many bears a Lapp has killed "by the hair of them which he carries in various places of his bonnet."

<sup>122</sup> Linnaeus, II, p. 63, figures a combination lance and snow staff employed in bear hunting.

<sup>123</sup> Pinkerton (Regnard's Journey), p. 194; Scheffer, p. 238; Turi (2), p. 236; although pits were used by the Lapps to trap bears and other animals Reuterskiöld (p. 41) says it was more usual to kill the former in its lair.

<sup>124</sup> Pinkerton, I, p. 415.

<sup>125</sup> p. 116. "Mann musz einen Spiesz haben, womit mann den Bären sticht, und er musz auf die Weise gestochen werden, dasz der Spiesz unter dem Arm verborgen ist und der Schaft des Spieszes ganz hinten hinter dem Rücken, und wenn der Bär auf



If we interpret correctly the data which have been brought together by the foregoing survey, they seem to indicate three general types of procedure in bear hunting among the native tribes of northern North America and Eurasia.

1. The animal was sought in its lair and, being forced out by the hunters, was as a rule dispatched with a spear or axe as it emerged, or shot with the bow and arrow.

2. The bear was frequently attacked in the open (even after it came out from its den) in what often amounted to a kind of "hand to hand" combat in which the favorite weapon was the spear or lance. One or more hunters might participate.

3. The beast was trapped by any one of a number of devices, most frequently of the deadfall variety.

The first of these, while practiced by practically all of the northern peoples to a greater or less degree,<sup>126</sup> is probably everywhere a characteristic method of hunting all of the species of the genus *Ursus* which hibernate. Dr. Swanton, for example, informs me that it was the usual method of hunting bears among the southeastern Indians.<sup>127</sup> It does not, therefore, distinguish the northern peoples, of North America at least, from their southern congeners. A similar statement might also be made regarding trapping bears, the devices used for this purpose showing the characteristic variations we should expect as we move from one culture area to another.

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einen losgeht, dann musz man sich hintenüberwerfen. Dann fällt der Bär in dem Spiesz, und dann musz man ihn herumdrehen und den Spiesz in den Bären hineintreiben und ihn gegen die Erde drucken." Cf. Turi, Lappish Texts, pp. 233-37 for references to the spear.

<sup>126</sup> Except the Eskimo. The polar bear does not hibernate.

<sup>127</sup> "They usually hunted the bear before he came forth from his winter quarters in a hollow tree or cave. In the former case, one hunter threw or dropped fire into the hollow and his companions killed the animal after it had been driven forth. In the latter case, some men would go into the cave bearing a torch. If the animal charged toward the entrance the men would fall flat and let him run out when the man or men left outside would kill him. If he did not offer to run out, they would locate him by the glitter of the light in his eyes, shoot him and drag him outside." Letter from Dr. Swanton, Nov. 4, 1924. Chief Bass of the Nansamund tribe (Virginia) says that bears in this latitude (Dismal Swamp) hibernate in the trees for about four weeks in January or February. The animals are hunted at this period with the aid of dogs and shot.

The spearing method, on the other hand, seems to characterize the northern tribes of both continents, more specifically those peoples who do not practice agriculture or at least have their cultural roots in a hunting economy.<sup>128</sup>

#### LINGUISTIC TERMINOLOGY FOR THE BEAR

One of the most constant and distinctive practices associated with bears is the custom of referring or speaking to the animal by some other term than the generic name for it. In many instances, in fact, there seems to be a specific prohibition upon the use of the proper name of the beast, especially upon certain occasions. Later, we shall refer to the specific circumstances under which the synonymy for the bear comes into play and which furnishes, as it were, the sociological context for the linguistic usage, but at this point I wish to compare and discuss the linguistic terminology for the bear as a detached phenomenon.

#### NORTH AMERICA

##### *Algonkian-speaking Tribes*

*St. Francis Abenaki.*—Although hunting is no longer practiced by most members of this tribe, the custom of calling the bear "cousin,"<sup>129</sup> is known to almost everyone of the older generation of males. It is spoken of in a somewhat light manner at present and is rationalized by referring to the fact that a skinned bear looks very much like a human being in its proportions. It is said that formerly, when evidences of the animal were seen in the woods, the hunters would say, "These are our cousin's tracks." Once, when a bear was seen to fall from a tree, a hunter exclaimed,

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<sup>128</sup> The peoples of the North Pacific Coast of America offer an apparent exception to this generalization, as do those of the Plateau area, but this may, in part, be due to lack of data. In the case of the former the ascendancy of pursuits connected with a littoral existence, and a consequent subordination of hunting, does not offer an essential contradiction to our statement.

<sup>129</sup> *ḡadangwa's*. The generic term for bear in this dialect is *awasús*. From a comparative point of view this term is of interest because it does not correspond with the most common designation for the bear in other languages of the Eastern-Central group. When it does appear it means "the animal" and may indeed represent an original circumlocution which has become generic.

"Cousin, did you hurt yourself?" The animal got up and ran off before the Indian could shoot. The apology to a killed bear is given what is evidently a secondary explanation, by saying that this is done out of consideration for their "cousin."<sup>130</sup>

*Penobscot*.—The bear is often called "grandfather."<sup>131</sup> One informant explained this by saying that this meant that the beast was the grandfather of all the animals.<sup>132</sup>

*Montagnais-Naskapi*.—Although the generic term for the bear<sup>133</sup> may be used before the hunt or in the camp, custom dictates a conventional synonymy upon certain other occasions. In the woods it is desirable to refer to the beast as "black food,"<sup>134</sup> so that the animal "won't get mad"; when addressed in its den it is called "grandfather" or "grandmother" according to its sex,<sup>135</sup> and after death "short tail" or "black food".<sup>136</sup> Other terms are the "big great food,"<sup>137</sup> "food of the fire" (black remains), "the one who owns the chin."<sup>138</sup> All of them are considered honorific in character.<sup>133a</sup>

*Eastern Cree*.—One of the most important synonyms for the bear in this group is the same as that used by the Montagnais-Naskapi, i.e., "black food."<sup>139</sup> If a hunter meets a bear in the woods

<sup>130</sup> Field notes, A.I.H.

<sup>131</sup> *Námus' su'más* generic term *awéssus*.

<sup>132</sup> Miss Mary Alice Nelson.

<sup>133</sup> Mácke'w.

<sup>134</sup> *Kawilápatc' mitcám* (Seven Islands); *kakáctewátc mitcám* (Moise); *kaopátc mitcámiyu* (Mistassini); *kwactewá mitcem* (Escoumains).

<sup>135</sup> *namo cum* or *nokum*.

<sup>136</sup> *katágwásocwi* (Seven Islands); *takáyəwagən* (Mistassini) lit. shortened tail.

<sup>137</sup> *tstcemitamiyu* (Mistassini).

<sup>138</sup> *K'cteo mitcám* (Seven Islands); and *kawè 'kwa'kwánit* (Mistassini).

<sup>138a</sup> Dr. Speck has collected one apparent exception to this rule. In a song of the Michikaman band the bear is called *kanáy ápeunt*, "chicane clown." Its occurrence in this context places it outside the category of other circumlocutions and it is not considered an opprobrious epithet. Comeau (p. 85) writes "when bears are spoken of it is always with great respect. In fact the name is not mentioned but the bear is referred to as 'the black beast' or simply 'the' animal."

<sup>139</sup> Skinner (1), p. 69. *kawí'pátc mitcem*. In referring to the Algonkian bands which Skinner calls "Eastern Cree" it has been convenient to follow his terminology for them, particularly as frequent citations from his publications are made. Nevertheless, the bands which he groups under this rubric (particularly those of Eastmain and Rupert's House) are more correctly classified with the Montagnais-Naskapi peoples

and it is necessary to speak to the beast, this is the term to use, as it is the bear's "proper name, and he will not be offended or frightened by it." It is also the name by which the animal is spoken of when the carcass is being ceremonially treated,<sup>140</sup> although "short tail,"<sup>141</sup> another Montagnais-Naskapi correspondence, both linguistically and ceremonially, is permissible after death. It is only permissible to refer to the bear as *muskwa*' (the "angry one" or "wrangler")<sup>142</sup> when the beast is not present "unless one wishes to anger him"<sup>143</sup> or as an expression of reproof. It must never be used before his carcass."<sup>144</sup> The latter prohibition also applies to the term "crooked tail," which is only used when joking about a bear.<sup>145</sup> When it is desirable not to let the beast know that it is being talked about, other linguistic substitutions are in vogue. One may speak of "old porcupine" or "the cat or lynx-like creature."<sup>146</sup>

*Tête de Boule*.—When hunters approach a bear's den the generic term (*maskwá*) is taboo. The animal is called "grandfather" (*mocum*), nowadays used as an equivalent of the English "mister" and considered to be honorific. After death *awásis*, "the animal" is proper.<sup>146a</sup>

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of the Labrador peninsula. Both linguistically and culturally their primary affiliations are with the Algonkians of the northeast and not with those to the west of them.

<sup>140</sup> *Ibid.*, pp. 69, 71.

<sup>141</sup> *Ibid.*, p. 72. *lukwaiáken*

<sup>142</sup> While this is a possible rendering for the initial syllable of the term it cannot be taken as final since the word occurs in other animals' names in eastern dialects, e.g., moose, muskrat, and mink.

<sup>143</sup> Mr. Skinner tells me that once when he was out hunting with some Cree and a bear came within range the animal ran off into the woods before he could shoot. The Indians immediately began to call the bear *muskwa*' and other invectives. When asked why they did this, the natives explained that the bear is just like a person; if you can get him mad, he will come back and want to fight.

<sup>144</sup> *Ibid.*, p. 72.

<sup>145</sup> *Ibid.*, p. 72. *Wakiush*.

<sup>146</sup> Skinner, pp. 71-2. *tcisheálk* (old Porcupine); *pisesu* or *pisistciu* (resembling a cat or lynx). Another term, *wakiu*, Skinner believes to be a variant of *wakiush*, and *matsue*', a variant of *muskwa*. *Matsue*, however, instead, of being a variant of *muskwa* as Skinner assumes, has the appearance of being *matciweo*, "he is bad," and may therefore be another independent synonym for the bear.

<sup>146a</sup> Cf. Comeau (p. 85) who says the Godbout band of the Montagnais use the same synonym. I am indebted to Mr. D. S. Davidson (University of Pennsylvania) for the above data which he has supplied from unpublished field notes.

*Northern Saulteaux*.—Of these people Skinner reports that, in addition to the generic term for the bear,<sup>147</sup> they have a synonymy which they refuse to divulge to white people "for fear that ill success will attend them."<sup>148</sup>

*Plains Cree*.—The bear is called "four legged human,"<sup>149</sup> "chief's son,"<sup>150</sup> "crooked,"<sup>151</sup> "tired."<sup>152</sup>

*Ojibway*.—In his well known *Travels*, A. Henry reports the use of the terms "relative" and "grandmother" in an apologetic speech to the bear<sup>153</sup> which we shall have occasion to refer to later.

*Sauk*.—Before a bear is killed a conciliatory speech is made in which the animal is called "old man."<sup>154</sup>

*Menomini*.—The term "elder brother" is used when the speech of apology is made<sup>155</sup> and Hoffman reports that in the Grand Med-

<sup>147</sup> *Mukwuh*, (1), p. 164.

<sup>148</sup> *Ibid.* This inhibition clearly illustrates the subjective importance of these synonyms.

<sup>149</sup> Skinner (4), p. 541. The native term is not given, although an untranslated synonym, '*neokwataicin*,' the meaning for the first part of which is "four legs," (suggested by Dr. Speck) comes very close to it. The generic word is *múskwú*.

<sup>150</sup> *Ibid.* *okemaokusan*.

<sup>151</sup> *Ibid.* *wakaiuc*; cf. E. Cree *wakuish* (crooked tail), Skinner (1), p. 72.

<sup>152</sup> *Nestoiuc*. Skinner (4), p. 541

<sup>153</sup> p. 143. Cf. Jones, II, p. 279, where an ill-treated lad befriended by a bear calls the latter "grandfather" and reciprocally (p. 273) a bear calls a boy "grandchild." A wolf is called "brother," I, pp. 74-5. Henry also reports (p. 175) the use of "grandfather" for the rattlesnake.

<sup>154</sup> I.e. *pāshito*. See Skinner (6), p. 21. This is also one of the personal names used by members of the bear gens and there are others of like meaning, e.g., *mák-wúmuétc*, old Man Bear, *mákwipāshito*, Bear Old Man. A cognate term also occurs in the sib names of the bear people among the Prairie Potawatomi, i.e., *Mukopashitú*, Skinner (8). Mr. Skinner suggested to the writer that these, as well as other personal names used in the bear sibs among the central Algonkian tribes, practically all of which refer to some habit or characteristic quality of bears, may have originally been a part of a rich synonymy for the bear. Some of personal names of the Menomini bear sib may, for example, be thus used. The circumlocutory customs such as we have described would account, in part, for the development of this linguistic feature, and later it is conceivable that the terminology may have become segregated by the use of these old synonyms for the bear as personal names of the bear sib people. The contents of the medicine bundles of the bear gens, so Mr. Skinner tells me, have practically no connection with the bear in any of the tribes with which he is acquainted.

<sup>155</sup> Jenks, p. 680.

icine Lodge the term used for the bear was *nanog'ke*. It refers to one of the deities who was changed by the Great Mystery into an Indian.<sup>156</sup>

*Blackfoot*.—Although none of the characteristic practices of bear ceremonialism have been reported from the Blackfoot, we do find references to the fact that certain substitutions for the generic term for bears are in use.<sup>157</sup> One specific occasion when this is necessary, is when there are medicine bundles hanging up in a tipi. Guests seeing these "must act accordingly and designate the bear, if at all, by some descriptive terms." The beast may, for instance, be referred to as the "unmentionable one" or "that big hairy one."<sup>158</sup> In speaking of a particular grizzly, "sticky mouth," is a term often used.<sup>159</sup>

### Miscellaneous

The Luiseno<sup>160</sup> call the bear "great-grandfather" and the Tsimshian and Tahltan sometimes employ the term "grandfather."<sup>161</sup>

Among the Thompson River Indians the use of special names for the bear and other animals is in quite a different setting than we found to be the case among the eastern Algonkians and which is characteristic of Eurasian peoples. All animals have names of their own which can only be revealed by the guardian spirit of an individual. Knowledge of this name gives the hunter special power over the animals. "A man who, knowing the name of the grizzly bear, for instance, addresses him, gains so much power over him that the bear at once becomes gentle and harmless." This knowledge of animal names is passed only from father to son.<sup>162</sup>

<sup>156</sup> p. 305. Dr. Speck suggests "my apparition" (that which is visible) as a rendering for this term.

<sup>157</sup> The ordinary term is *kydiu* (personal communication, G. B. Grinnell) for all varieties. Cf. Schultz, p. 106.

<sup>158</sup> Wissler (5), pp. 52, 154. There is a myth which explains the origin of this custom, see p. 164.

<sup>159</sup> Communication, G. B. Grinnell; Schultz (p. 106) gives this as *Pah-ksi-kwo-yi* and remarks that the medicine-pipe men were obliged to use this term. "They, too, were the only ones who could take any of the skin of a bear, and then merely a strip for a head band or pipe wrapping."

<sup>160</sup> Gifford (2), p. 209, *piwi*.

<sup>161</sup> Information on the Tahltan from MS notes of J. Teit through the courtesy of D. Jenness.

<sup>162</sup> Teit (4), p. 354.

It would seem that this might be classed as a form of verbal magic and so far as the other tribes of our survey are concerned, this is the only case where a knowledge of the name of the bear is of any coercive value. In other cases, the names for the bear are honorific and lack all traces of any magical aspect.

#### EURASIA

*Siberia.*—In the Old World we find a similar taboo upon the use of the bear's name and a substitution of other terms.<sup>163</sup>

#### *Kamchadal*

Among the Kamchadal, Steller says that they have all sorts of formulas which they use in speaking of the animals they reverence. They do not call the whale, bear, and wolf by their proper names when they meet them, as these creatures understand human speech.<sup>164</sup> Krashenninikoff reports this custom for the bear and the wolf.<sup>165</sup>

#### *Yukaghir*

Bogoras reports<sup>166</sup> that the Russianized Yukaghir of the Kolyma, "when speaking of a bear, uses the words "grandfather," "old man," or still shorter, "he." In the address to the slain bear recorded by Jochelson, the terms "grandfather," "owner of the earth," and "great man," are those which appear.<sup>167</sup>

#### *Ainu*

Among the Ainu there is a varied synonymy. Some of them will say, claiming genetic kinship with the bear, "As for me, I am a child of the god of the mountains; I descended from the divine one who rules in the mountains."<sup>168</sup> A similar euphemism is the "dear

<sup>163</sup> Labbé (p. 231) calls special attention to this fact in respect to the natives of Siberia, who, he says, do not like to pronounce the name of the bear. Without referring them to specific peoples the author gives the following substitutive terms: "the little old man," "the master of the forest," "the respected one" (le respecté), "the wise one" (le savant). The animal is also called "my cousin" or referred to as "that's him."

<sup>164</sup> p. 176.

<sup>165</sup> Quoted by Czaplicka (5), p. 270, from Russian ed., p. 80.

<sup>166</sup> (1), p. 325.

<sup>167</sup> Jochelson (4), p. 122.

<sup>168</sup> Batchelor (1), p. 485. The Kurile Ainu (Torii, p. 256) call the bear "*Tchir-amendeŭ*" or "*Kim-Kamoui*," the god of the mountains.

little divine thing who resides among the mountains."<sup>169</sup> The much discussed term "*kamui*" is also applied to the bear.<sup>170</sup>

The Gilyak and other Amur peoples speak of the bear as "*mafa*" or "*мафа*."<sup>171</sup>

### *Ural-Altaic Peoples*

The Yakut, according to Shklovsky,<sup>172</sup> consider it a "sin" to pronounce the name of the bear and consequently speak of the beast as "grandfather" or "he." Other synonyms are "beloved uncle,"<sup>173</sup> "lord," "worthy old man," "good father."<sup>174</sup>

"The Tungus call the bear 'old man' and 'grandfather,' both terms implying respect."<sup>175</sup>

A similar custom is reported for Finno-Ugrian groups. The Ostyak are reported by Castrén to apply the term "*Pelzvater*," "*Nagelgreis*," and "*das schöne Tier*" to the beast,<sup>176</sup> and the Samoyed, "*Altvater*."<sup>177</sup> The Vogul called the bear "the venerable

<sup>169</sup> *Ibid.*, p. 486.

<sup>170</sup> Consult Batchelor (2) for the Ainu usage of the term "*kamui*," also Chamberlain (2) and Sternberg (4), pp. 426-27. This word is by no means limited to the bear; in fact, Sternberg goes so far as to say that "Beast and *kamui* are synonymous." But, although animals may be called *kamui*, conscious worship is rendered to "the masters" of each species or element, who, in their turn, too, are called "*kamui*, with the appellation of this or that sphere of nature added." "Thus 'bears' as individuals may be called '*kamui*' and also the 'master' of the bears." See also my section on the Ainu bear festival.

<sup>171</sup> Ravenstein, p. 379, renders this as "chief" or "elder." The Tiger is called *Sakhale mafa* (black chief).

Lansdell, p. 607, not only gives the same information but the wording of the passage itself is redolent of Ravenstein who wrote twenty years earlier.

Fraser renders the term as "grandfather" or "ancestor" and also refers to the term for tiger which, he says, means "old black grandfather." His specific reference is apparently to the Orotchi.

<sup>172</sup> P. 23. (Kolyma district). This author also claims that the bear is considered an incarnation of one of their gods, "Ulu-Tayon," and is addressed by this term.

<sup>173</sup> Simpson, I, p. 266.

<sup>174</sup> Galitzin.

<sup>175</sup> Czaplicka (6), p. 138. Mr. H. U. Hall has given me the following from his Limpiisk Tungus vocabulary, *amaka*: grf., old man; *amakasi*: bear. The termination of the latter word is obscure. It may be a possessive pronominal suffix.

<sup>176</sup> Castren (1), vol. II, p. 59. Sommier (p. 166) also refers to the first two terms as circumlocutions used to avoid offending the bear and says that they remind him of a similar Lappish usage.

<sup>177</sup> Castren (2), p. 189.



one," avoiding thereby the mention of the animal's proper name.<sup>178</sup> Among the Votyak, similarly, the term *maka*, "the old man," is substituted,<sup>179</sup> or "uncle of the woods."<sup>180</sup> The Kalevala gives ample evidence of a rich synonymy for the bear among the ancient Finns. In Rune 46 the animal is called "honey eater," "honey paws," "forest-apple," "golden friend of fen and forest," "pride of Woodlands," "famous Light-foot," the "Illustrious," "Pride<sup>181</sup> and Beauty of the forest," "the Master," "Loved-one from the Glenwood."

The term "broad-foot" is a synonym reported to be in use by the Esthonians.<sup>182</sup> Among the Lapps it is said that there was a taboo upon the use of the proper name for the bear and that they called it "the old man with the fur garment."<sup>183</sup>

We may add the ancient Hungarians, as Kohlback<sup>184</sup> draws attention to the fact that the animal seemed to have inspired them with solemn dread (*heilige Scheu*) as they did not utter its name and in their later home made use of the Slavic name *medve(d)* for the bear.

<sup>178</sup> Ahlqvist, p. 173. This author says that just as in the ancient forests of Finland the bear was called "honey paws" instead of by its true name "so vermeiden auch die Wogulen die Nennung seines Namens und nennen ihn gewöhnlich den Alten (*andueh*) mit welchem Namen man ohne Zweifel seine Ehrfurcht ausdrücken will."

<sup>179</sup> Georgi, I, p. 138.

<sup>180</sup> Buch, p. 139. *tel*, *nules*, *caca*=forest; *nunä*=uncle. This writer says these people, like the Finns and Lapps, apply flattering names to the bear which are used half playfully, half reverentially. He says *moko* (cf. Georgi's statement) is also customary.

<sup>181</sup> Crawford's translation vol. II. Cf. Castren (2), p. 201, who gives, in addition, "the old Man." For other metaphysical synonyms for the bear see Abercromby, II, pp. 56, 157-160, 208-209, 309-311.

<sup>182</sup> Quoted by Frazer (Taboo), p. 398, from Boecler-Kreutzwald, *Der Esthen abergläubische Gebräuche, Weisen und Gewohnheiten*, p. 120. The wolf is called "grey coat."

<sup>183</sup> Pinkerton (Leems), p. 485, "*moedda-aigja*." The proper name is "*gu-ouzhja*"; Dillon, II, p. 219 (Koutokeino Lapps, Norway); Georgi, I, p. 33. Cf. general statement of Lappish analogies to other Finno-Ugrian peoples in Sommier and Buch, *op. cit.* Johan Turi (p. 123) gives "*Pelzgreise*" as a synonym for the bear.

<sup>184</sup> p. 332-3, who quotes as his source "Magyar Mythologia," p. 152, by Jacob Kandra, ed. by his friend Dr. Pasztor, 1897.

*Indo-European Peoples*

Euphemistic names for the bear are to be found among the Swedish peasantry, according to Lloyd.<sup>185</sup> The herd-girls, for example, "entertain the notion that if the world or the bear be called by other than their own proper and legitimate names, they will not attack the cattle." The bear is addressed by terms similar to those prevailing among the Finno-Ugrian people of the North, i.e., the old man, great father, twelve men's strength,<sup>186</sup> golden feet. A similar custom is found among the Slavic Huzules,<sup>187</sup> who consider it necessary to avoid the use of the proper name for the bear and so respectfully call the animal, "the little uncle," or "the big hairy one."<sup>188</sup>

The foregoing data, scattered as they are, show that the custom of substituting special terms for the bear is a practice associated with the animal from Laborador to northern Europe.<sup>189</sup>

The terms themselves may be grouped as follows:<sup>190</sup>

- a) Descriptive periphrasis or circumlocutions based on some real or imaginary characteristic trait or aspect of the bear; e.g., "short tail," "black food," "honey eater."
- b) Metaphorical expressions; e.g., "old man with the fur garment," "the venerable one," "golden friend of fen and forest."
- c) Kinship terms.

<sup>185</sup> p. 251. The terms applied to both the wolf and the bear are called "Smeknamn" or "caressive names." This author says the terms applied to the wolf are "legion, but for the most part untranslatable." He gives as samples, "The silent one," "Grey Legs," "Golden Tooth."

<sup>186</sup> This euphemistic epithet is evidently common to both Swedes and Lapps as Brooke (p. 184) says that there is a common saying among the latter people that the bear had "12 men's strength and 10 men's understanding."

<sup>187</sup> A pastoral people of the Carpathians, collectively known as Ruthenians or Little Russians.

<sup>188</sup> See Kaindl (1), p. 103; (2), p. 387.

<sup>189</sup> Although the widely known synonym *bruin*, in common usage among western European peoples and ourselves, may have originally had some connection with the type of linguistic substitution we have been discussing, our free supplementary use of it, in addition to the generic term, is in contrast with the enforced substitution which marks the psychology of most of the peoples we have reviewed.

<sup>190</sup> See Skeat and Blagden, II, p. 415 *seq.* for the linguistic taboos and circumlocution of the Malays used in fishing, fowling, camphor hunting, etc. whose classification of terms I have followed.

Many of the terms used for the bear are, in native usage, undoubtedly euphemistic or at least honorific, although it would be a difficult matter to classify them from this point of view. The intention seems to be to please the animal (or its spirit controller) by the substitution, or, to put it negatively, to avoid any possible offense. It seems to me that this is clearly the case when this practice is put side by side with the other elements of bear ceremonialism which we shall shortly discuss. This is, however, a psychological generalization which it would be hazardous to insist upon, in view of the many cultures in which the practice appears and considering the absence of detailed information in so many of them.

The occurrence of all three types of expressions in certain tribes and among the peoples of both America and Eurasia does not permit us to base any conclusion on their geographical distribution, but taken collectively, the practice is significant—not that linguistic substitutions of this sort are unique in the regions and cultures studied, or that the practice is associated with the bear alone. Indeed it is quite apparent, although the available data are more meager for other creatures, that many other animals toward which magico-religious attitudes are held, receive designations under certain circumstances which parallel those bestowed upon the bear.<sup>191</sup> But, there is this difference to be noted. Whereas the animals to which such terms are applied vary tremendously as we go from tribe to tribe, the bear is the *constant* recipient of circumlocutory terms over the whole area studied. Moreover, we have many positive statements to the effect that this practice is accompanied with a taboo upon the use of the generic term upon occasions when the hunter is in direct contact with the animal, when alive or dead, or both. There is also a hint, where our data are fullest, that quantitatively the synonymy for the bear is richer than that for other animals to whom the same customs may apply, which distinguishes the practice as associated with this beast, from its usage in connection with other

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<sup>191</sup> All of the comparable material we have been able to collect has been referred to in the footnotes.

animals. These facts suggest what we should expect in view of the other customs and beliefs of which bears are the object, viz., that the custom is more closely and typically associated with the bear than with other animals, although further investigation of specific groups would be necessary to prove this conclusively.

## THE CUSTOM OF TALKING TO THE BEAR

### CALLING THE BEAR OUT OF ITS DEN

In Labrador, the Montagnais-Naskapi request the animal to come out of its den, and they maintain that it does so. They address it as "grandfather," but if the beast does not appear after being called three times, they know that they have made a mistake in the sex, and so they say "*olewi nokàm*" (Come out, grandmother). If the bear growls the third time they know they have it right.<sup>192</sup>

Among the Penobscot it was formerly the custom, after the den of the animal was located, for the "hunters to gather at the spot and talk to the beast." After a little of this talk, they say, he will invariably come out.<sup>193</sup> The Malecite also called out the bear.<sup>194</sup> The Abenaki hunter throws a stick into the bear's lair first, and then says, "*Tca sawosà*" (now, indeed, come out), and the beast comes out and is killed.<sup>195</sup> Mr. Davidson tells me that among the Tête de Boule the bear is called "grandfather" by the hunters and requested to allow itself to be killed.

The custom of asking the bear to come out and be killed is also recorded in a few other scattered instances. The Thompson River Indians begged their prey to come out and be shot, and the

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<sup>192</sup> B. Picard and Pitabano. Bears not only understand what the hunters say, but know when the latter are coming for them. Dr. F. G. Speck has recorded a tale in which such an episode occurs. There are variant forms of this speech recorded from different bands. At Escoumains they say, "Come out, grandfather, already it (the sun) is warm enough for you to come forth." A further exhortation, "Show me your head, grandfather," is sometimes added.

<sup>193</sup> MS, F. G. Speck. They say "*awesus nodesa*" (bear, walk out) or *Ki awess* "*us kamaskul nodesa*" (Bear, I've found you, so come out). *Ki* is an exclamative, indicating surprise.

<sup>194</sup> MS, F. G. S. Informant Gabe Paul.

<sup>195</sup> MS, notes, A I.H.

grizzly, especially, was petitioned not to be angry with the hunter nor fight with him, but to take pity on him, in short, to give himself up.<sup>196</sup> Shasta hunters did likewise,<sup>197</sup> and among the Carrier, bears "were summoned to issue from their holes."<sup>198</sup>

For Siberian tribes data on this practice are very unsatisfactory. Bogoras, writing of the Lamut is, however, very specific. After a bear den is surrounded the hunters sing: "Grandfather, Old One, Our Grandmother, and the older sister of yours, Dantra, ordered you saying, Do not frighten us! Die of your own choice."<sup>198a</sup> One of the early writers on Gilyak customs<sup>199</sup> refers to the practice of shamans reciting "love songs" to the bear in its den, asking the beast to come forth from its hiding place. Von Schrenck, commenting on this, maintains that Gilyak shamans have nothing to do with the hunting of the bear or any other animal. In view, however, of the presence elsewhere of this custom as an integral part of the bear hunt, not as a function of the shaman, but as practiced by the ordinary hunter, the record of Nordmann is very suggestive. Whether the shaman or the hunter did it, does not matter so much, as I see it, but whether it was done at all.

#### CONCILIATORY SPEECHES

A custom somewhat allied to the foregoing, in so far as both assume that the bear understands what is said to it, is a speech, conciliatory in character, which is made to the beast. In some tribes this address is made prior to killing the animal, while in others it is made after death. Although we shall later discuss the ceremonialism often connected with the bears' carcass, the apologies offered, whether at that time or earlier, are so similar in spirit and content that it will be convenient to give an account

<sup>196</sup> Teit (4), p. 347. Deer (*Ibid.*, p. 346) were also asked "to present themselves to be shot at."

<sup>197</sup> R. R. Dixon (2), p. 432.

<sup>198</sup> Information, Mr. D. Jenness, letter October 17, 1924.

<sup>198a</sup> "If the bear is 'well-minded,' he will obey the prayer and present of his own will the side to the spear. He will die of the first blow and consequently his death will be easy and even pleasant, 'similar to tickling.' An 'evil minded' bear may stand on his own defence and even kill a hunter or so; and therefore his death will be painful and bad." Bogoras, (3) p. 208.

<sup>199</sup> Nordmann, cited by Von Schrenck, III, p. 561.

of their characteristics and trace out their geographical distribution at this point rather than separate them according to whether they are made before or after killing the bear.

#### ADDRESS OF APOLOGY

In North America an address of pardon or apology to the bear is reported for the following peoples: Montagnais-Naskapi,<sup>200</sup> Malecite,<sup>201</sup> St. Francis Abenaki,<sup>202</sup> Eastern Cree,<sup>203</sup> Northern Saulteaux, Tête de Boule,<sup>204</sup> Plains Ojibway,<sup>205</sup> Ottawa,<sup>206</sup> Menomini,<sup>207</sup> Sauk,<sup>208</sup> Fox,<sup>209</sup> Ojibway.<sup>210</sup> The Tlingit and possibly the Winnebago may also be mentioned in this connection.<sup>211</sup>

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<sup>200</sup> Although Dr. Speck has been unable, as yet, to secure a positive statement from the aborigines of the Labrador peninsula as to this custom, it seems worth while to record the statement of Mr. Frank Gallenne of Seven Islands, P. Q., who has been a resident there for forty years and speaks one of the Naskapi dialects. He told me that he had been with the Indians when they hunted bear and that on more than one occasion they asked the animal's pardon before killing it. He cited it as one of the most curious of their superstitions. Comeau (p. 85) writes that "when caught in a steel trap or seen at a distance, he (the bear) is spoken to and asked that vengeance be not taken for his death."

<sup>201</sup> Mechling, p. 101 (note). The hunter "tells a bear before he kills it that he is sorry that he is in need of food and has to kill it."

<sup>202</sup> Ms. text, A. I. H. "I killed you because I need your skin for my coat, and your flesh so that I can eat, because I have nothing to live on."

<sup>203</sup> Skinner (1), p. 69. The bear hunter explains that nothing but hunger drove him to kill it and "begs the animal not to be offended," nor "permit the spirits of other bears to be angry."

<sup>204</sup> *Ibid.*, p. 162.

<sup>205</sup> Skinner (4). The hunter approaches the lair and says, "I am thankful that I found you and sorry that I am obliged to kill you," promising the spirit of the beast a sacrifice of maple sugar or berries.

<sup>206</sup> Jes. Rel., Vol. 67 (1716-27), p. 157. Cf. Handbook, II, p. 169. "When they kill a bear they make feast of its own flesh, they talk to it, they harangue it, they say, 'Do not leave an evil thought against us because we have killed thee. Thou hast intelligence, thou seest that our children are suffering from hunger. They love thee and wish thee to enter into their bodies. Is it not a glorious thing for thee to be eaten by the children of captains?'"

<sup>207</sup> Jenks, p. 680. The animal is told that the "killing was accidental or else that he must forgive him this one offense for his poor family is starving." Hoffman writes, "Although a Bear (sib) man may kill a bear, he must first address himself to it and apologize for depriving it of life. . . ." (p. 44). "Should an Indian of the Bear totem, or one whose adopted guardian is represented by the bear, desire to go hunting and meet with that animal, due apology would be paid to it before destroying it."

In Asia we may refer to the Kamchadal,<sup>212</sup> Yukaghir,<sup>213</sup> Ostyak (Ugrian).<sup>214</sup> Among the Ainu, a speech of this type is an important feature of the bear festival.<sup>215</sup> Whether a bear's pardon is asked when killed in the woods, is a point we have not been able to clear up from the available literature. Batchelor does not refer to it although he describes how the animals are hunted.<sup>216</sup> Mrs. Bird's statement that "when a bear is trapped or wounded by an arrow, the hunters go through an apologetic or propitiatory

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(p. 65). This is the only case in which we have found any association between the conciliatory address and members of a specific social group.

<sup>208</sup> Skinner (6), p. 21 and verbal information.

<sup>209</sup> Owen, p. 55, "When a bear was engaged, the hunters broke silence by telling it how they respected it and hoped that it would allow itself to be killed."

<sup>210</sup> Henry (p. 143) was present when a bear was killed. Members of the party, but more particularly one of the old women, took the dead animal's head in their hands, stroking and kissing it several times; begging a thousand pardons for taking away her (the bear's) life; calling her their relation and grandmother, and requesting her not to lay the fault upon them, since it was truly an Englishman that had put her to death."

<sup>211</sup> Swanton (2), p. 455 and Radin p. 111. The bear is greatly venerated among the Winnebago.

<sup>212</sup> Steller, p. 280, is categorical about this. He says the Kamchadal never killed a land or sea animal without first making excuses to it and begging the beast not to take offense. Even if a native meets a bear "spricht er nur *sipang*, und beredet ihn von weitem Freundschaft zu halten" (p. 114). Dr. Jochelson tells me that the Kamchadal make a speech similar to that of the Yukaghir.

<sup>213</sup> Jochelson (4), p. 122. Taking off the skin of a slain bear they say, "Grandfather, owner of the earth, don't think ill of us. We did not do this to you. The Yakut did it. Your "silver" bones we shall put in a special house." (This means that a grave-house similar to that constructed for human beings will be made. The implication is that the beast will be treated like a deceased relative or friend.) I am indebted to Dr. Jochelson for the English translation of the above from the original Yukaghir text which, in his published work, appears only in a Russian rendering.

<sup>214</sup> Georgi, p. 200. "Whenever they kill one of these animals they sing songs over him, in which they ask his pardon and hang up his skin, to which they show many civilities, and pay many fine compliments, to induce him not to take vengeance on them in the abode of spirits." Pallas, III, p. 64 (trans. by Trusler, p. 317). After killing a bear it is skinned and the latter is hung on a tree. "All sorts of reverence is paid to it, and the best apologies made to the animal for its being killed. By doing this, they hope to avert, in a polite way, the injury which might otherwise be done them by the spirit of the animal." Sommier, p. 217. See Czaplicka (2) for the subdivisions of the Ostyak.

<sup>215</sup> Batchelor (1), p. 417; Labbè, pp. 241-243, 251; Czaplicka (5), p. 297.

<sup>216</sup> Batchelor (1). pp. 473-477.

ceremony<sup>217</sup> is suggestive, without being in any way conclusive. All we can say is that observers of the Ainu have been so much impressed with the bear festival and so few have evidently traveled with the natives into the bush, that descriptions of the periodic communal ceremonies have entirely eclipsed the less picturesque customs which undoubtedly take place whenever a bear is killed.

#### DEATH ATTRIBUTED TO A SPECIOUS AGENCY

In addition to the apologetic note which characterizes so many of the conciliatory speeches made to bears, either before or after killing them, there are several variant features worthy of notice. These may accompany a specific apology or be the principal point of emphasis in some tribes. One of the most interesting and important of these is the custom of telling the beast that its slayers are not its slayers. That is, the responsibility is frequently shifted to a fictitious agency. In North America the clearest case of this sort I have found recorded is in Henry's account of the Ojibway, in which the animal is assured that an Englishman put it to death and not an Indian.<sup>218</sup> In Asia, it is very common in Siberia, and is reported for tribes for which the more generalized type of speech has already been indicated. Czaplicka<sup>219</sup> gives this as typical: "It was not I, Grandfather; it was the Russians (i.e., any European) who have killed you through me. I am grieved, I am truly grieved. Be not angry with me." The Koryak,<sup>220</sup> Kamchadal,<sup>221</sup> and Yukaghir<sup>222</sup> say it, the latter placing

<sup>217</sup> Bird, II, p. 101.

<sup>218</sup> Op. cit., p. 143. Cf. however, the Menomini (Jenks, p. 680) among whom the bear is sometimes told that the killing was accidental. And also the Kwakiutl (passim) who say "I did not do any harm to you." A similar notion is implicit in the Montagnais-Naskapi practice of using a circumlocutory term in speaking of the bear after death; such as "I have killed the 'black food'." The Indians say that this is done so that the animal will not know who killed it. So far as I can see, the Asiatic peoples evidence a more formalized expression of the same basic idea.

<sup>219</sup> (6), p. 138. It is not exclusively connected with the bear. See, e.g., the generalized account given by Bogoras (3), pp. 210-211 of the "Thanksgiving Ceremonial of heads" celebrated by the Chukchi, Koryak, Asiatic Eskimo, and Kamchadal. The animals are told that stones killed them.

<sup>220</sup> Bastian, III, p. 26.

<sup>221</sup> Steller, p. 331. After feasting on bear's flesh the host would lay the blame



the blame upon the Yakut or the elk, the others upon the Russians.<sup>223</sup> Among the Gilyak the toad, at least for the purposes of the bear festival, is deemed the scapegoat.<sup>224</sup> Proceeding westward we may mention the Yakut,<sup>225</sup> Tungus,<sup>226</sup> Ostyak (Ugrian),<sup>227</sup> and the Votyak,<sup>228</sup> as practitioners of this cajolery. The Kalevala also contains a reference to this custom.<sup>229</sup>

#### OTHER FEATURES

In a number of American tribes, specific reasons are given the bear as to why its life must be taken. These are simply the obvious utilitarian ones. The hunter needs the creature's flesh for food and its skin for clothing.<sup>230</sup>

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of the animal's death on the Russians and request the beast to take vengeance upon them.

<sup>222</sup> Jochelson, *op. cit.* (4), p. 122. Another version was this:

Q. Oh! great man, who did it to you (i.e., killed you)?

A. The being who is feeding on small trees (referring to an elk).

I am indebted to Dr. Jochelson for this translation.

<sup>223</sup> It is said that the Chuckchi tell a wolf that the Russians killed it (Pauly p. 7), begging the beast not to be angry.

<sup>224</sup> Von Schrenck, III, p. 715.

<sup>225</sup> Galitzin. While eating the bear the guests "apostrophize the ghost." "No," say they, "don't believe us capable of having perpetrated such a murder. Among us, poor Yacoutes, the art of making guns and deadly balls is unknown. They are either some Russian's or Tungouse's who have done the evil deed." As it is customary with them to preserve the bones, they go on to say, "Far from being murderers, it is, on the contrary, we who gather together here the bones of this bear killed by others."

<sup>226</sup> Czaplicka (1), p. 476. Unfortunately, the author does not specify any particular group but presumably she is generalizing regarding the northern branch which she personally knew best.

<sup>227</sup> Ides, p. 21. They address the dead carcass thus: "Who killed you? the Russians they answer themselves. Who cut off your Head? a Russian ax. Who cut up your Belly? a Knife which a Russian made. And more such Follies are they guilty of. In a word the Russians bear all the blame, and they are entirely innocent of murder of the bear." Czaplicka (2), p. 575; Sommer, p. 217; Ahlqvist, p. 298; Gondatti, p. 79.

<sup>228</sup> Buch, p. 139. These people suggest that the animal has fallen from a tree or met his death in some other way.

<sup>229</sup> Rune 46, Crawford's translation, II, p. 664. Ahlqvist also cites this parallel, pp. 297-8; viz., that the bear met its death by slipping from a tree or impaling itself on a sharp branch.

<sup>230</sup> St. Francis Abenaki, Malecite, Eastern Cree, Ottawa, Menomimi. The Tlingit (Swanton [2], p. 455) talk to the head of the slain bear, "as if to a human being," when they have brought it into camp and decorated it. They say, "I am your friend. I am poor and come to you." Before burning the entrails the hunter said to

The use of kinship terms, or other circumlocutory expressions in place of the name of the bear, probably appears with more frequency in these speeches than our actual data show. Few authors have given us verbatim addresses to the bear, and even those who cite the custom of linguistic substitution do not always give the terms used upon specific occasions.

In some instances the bear is petitioned not to allow the spirits of other bears to be angry with the hunter<sup>231</sup> or asked to inform other members of its species how well it was treated, so that they will desire to share a similar fate.<sup>232</sup> In some American tribes of the Plateau Area, the North Pacific Coast and Mackenzie area, we find that a "mourning-song" is chanted after the animal's death. Its function seems to be analogous to the conciliatory speeches of other peoples. The strong propitiatory element in these songs is apparent in the "bear-song" of the Lillooet,<sup>233</sup> which we quote:

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them, "I am poor. That is why I am hunting you." This speech was to conciliate the bear's friends who might kill the hunter if he did not use good words toward one of their species.

<sup>231</sup> E. Cree (Skinner [1], p. 69). The same belief is entertained by the Eskimo of the west coast of Hudson Bay (Boas [2], p. 501) and may be implicit in the case of other peoples who do not actually express it in an address to the bear.

<sup>232</sup> Thompson (Teit [4] p. 347. Cf. Krakinh. The Thaltai say to a slain male bear "Grandfather, may your wives and children follow you." MS. note J. Teit.

Kamchadal (Steller, p. 331). The treatment here referred to, is the food placed before the carcass, etc., which we will discuss in a later section. The belief was that by so doing other members of the species would be prevented from avoiding man. (*Ibid.*, p. 280). The author also says (p. 331) that seals, sea lions, and other animals were also treated with a similar ceremonious respect, although no details are given. For similar elements in Ainu speeches to bears, see Batchelor p. 487 and Labbé (Sagha' lin Ainu), pp. 242-3.

Cf. Featherman p. 422 (Quoted by Frazer p. 224) for Votyak.

<sup>233</sup> Teit (1), p. p. 279. "When an earnest and good singer chanted this song, using effective words, and speaking, as it were, from his heart, his listeners were so moved that they wept, and the tears rolled down their cheeks." Teit says the air is somewhat different from the bear songs of the Thompson River Indians. He states, (4) p. 347, that this latter group consider the spirit of the bear to be very powerful and mysterious and before singing the bear song the hunters paint their faces with alternate perpendicular stripes of black and red. Similarly, the Shuswap (Teit (2), p. 602) "sang the grisley or black bear song as the case might be, and prayed, 'Oh, thou greatest of all animals, thou man of animals, now my friend, thou art dead. May thy mystery make all other animals like women when I hunt them. May they follow

You died first, greatest of animals.  
 We respect you, and will treat you accordingly.  
 No woman shall eat your flesh;  
 No dogs shall insult you.  
 May the lesser animals all follow you.  
 And die by our traps, snares and arrows!  
 May we now kill much game,  
 And may the goods of those we gamble with follow us.  
 And come into our possession!  
 May the goods of those we play *lehal* with become completely  
 ours,  
 Even as an animal slain by us.

The Thompson people also thanked the bear for allowing itself to be killed,<sup>234</sup> a feature to be found also among the Lapps,<sup>235</sup> who thanked the animal for not hurting them and for not breaking their weapons. Another writer says that it is a frequent custom among the latter people "to speak to the beast when about to attack it" for they suppose "that it perfectly comprehends their discourse."<sup>236</sup>

Despite the wide variation in the content of speeches, songs, or addresses to the bear I should like to emphasize the fact that among the tribes inhabiting the northern forests of both continents, the custom of talking to the bear either before or after killing it, or both, is a constant feature in all the groups where any

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thee and fall an easy prey to me.' " A bear mourning song is mentioned for the Tsimshian (Boas (7), p. 283). The Western Carriers sang a song at the killing of a black bear (perhaps also the grizzly). This is done "so that as the bear dies it may say, 'I like that song,' and the hunter will be able to shoot many bears thereafter." (Information, Mr. Jenness.) The Tahltan sing mourning songs over the bear which they have learned from the Nass River Indians. (D. J. from notes of James Teit.)

Cf. De Smet (1), p. 139, for Assiniboin.

<sup>234</sup> Teit (4), p. 347. They also asked "that the mate of the slain might share a similar fate." Kwakiutl.

<sup>235</sup> Scheffer, p. 233.

<sup>236</sup> Brooke, p. 184. They have a common saying that "the bear has 12 men's strength, and 10 men's understanding." As an illustration of speaking to a bear the author gives the following episode which came to his personal attention: A Lapp, who was once out hunting reindeer, suddenly encountered a bear. His gun missing fire, he said to the beast, "You rascal, you ought to be ashamed of attacking a single man; stop an instant till I have reloaded my rifle and I shall be again ready to meet you." Our author informs us that the animal, which was a female and had two cubs with her, did not heed the hunter but made an immediate retreat.

details are available regarding hunting practices. This is a distinguishing feature of bear hunting as compared with the methods used in the pursuit of other animals.<sup>237</sup> The most widespread convention seems to be that of a conciliatory address to the bear, a specialized feature of which, in Eurasia, is the custom of assigning the blame for the beast's death to some specious agency. In certain contiguous localities we find typical patterns, e.g., the "bear song" among the Western Indians and the custom of calling the bear out of its den among the Wabanaki Algonkians; but even in these cases there are analogous customs to be found elsewhere which, if our information were fuller, might enable us to draw more positive conclusions than our present data warrant.

#### POST MORTEM CEREMONIES AND CUSTOMS

After killing a bear, it was the custom of many peoples of North America and Eurasia to perform certain rites in connection with the carcass of the animal, or its head and skin and, when feasting upon the flesh of the beast, also to follow definite prescriptions or observe certain taboos. It is our intention to survey this set of customs, distinguishing the peoples who practice such ceremonies from those who do not and endeavoring to emphasize the characteristic form which these observances take. We shall follow a regional grouping of the data,<sup>238</sup> based mainly upon characteristic similarities in the customs themselves. This plan will serve to bring out clearly the major differences which distinguish the practices of one area from those of another. At the same time, however, we shall try to indicate the variations which occur in the observances of the tribes which we have grouped together.

Although our major emphasis will be upon the objective practices themselves, whenever possible, we shall endeavor to throw light upon the motivation of the customs described. In some cases this will be somewhat precarious, however, in view

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<sup>237</sup> The exceptions, e.g., among the Kamchadal, are surprisingly few and considering the fact that even relatively superficial observers record these customs for the bear and not for other animals inclines us to think that the lack of data implied a genuine absence of such customs and not an incomplete record.

<sup>238</sup> With one exception, the California-Great Basin area, we have followed the terminology of Wissler (1).

of the meager data available, and in others it cannot even be attempted. Finally, we shall discuss the possible significance of the broad intercontinental analogies which these customs exhibit.

#### NORTH AMERICA

##### *Eastern Woodlands*

*Montagnais-Naskapi*.—The earliest reference to any special procedure connected with slain bears among the Labrador Indians is that of James Mackenzie.<sup>239</sup> He says, "Of all animals, the bear is regarded with the greatest reverence and respect among the Nascapees. The skin of the first cub they kill in the hunting season being stripped entirely from the carcass, is stuffed with hay,<sup>240</sup> and the head and paws decorated with beads, quills and vermillion." The blood, entrails, and flesh are then cooked and everyone participates in the meal, while, "in the center of the feast the skinny deity<sup>241</sup> is placed, grinning while the drums beat, and the guests devour the flesh in silence."<sup>242</sup>

Contemporary investigation of the bear customs of the Labrador aborigines reveals a few simple rites which are still practiced, and there may be still others not yet recorded. In conscious purpose they are directed toward the propitiation of the spiritual controller or "soul spirit" of the bear in order that a ready supply of similar game may be available in the future. While all animals are thought to be under the control of supernatural agents, more or less similar in their *modus operandi*, the

<sup>239</sup> Masson, II, pp. 415-6.

<sup>240</sup> This is the only reference among an Algonkian people which refers to the immediate skinning of the bear, or to stuffing it; also to the selection of the first bear killed for ceremonial treatment.

<sup>241</sup> The religious philosophy of these people is sufficiently well known today to deny any such position of the bear in native thought. Mackenzie was no more obtuse than other early explorers, traders, and travelers, to the fine distinctions which nowadays we find it necessary to make in describing the religious notions of "savages."

<sup>242</sup> It is said (*Ibid*) that the feast is in honor of *Kawabapishit* "to whose paternal bounty they attribute the luxurious meal," but no satisfactory analysis has yet been offered of this word nor does it mean anything to the natives of Labrador today. A possible rendering might be "the little one who is white" (F. G. S.) Cf. Comeau, p. 88, who remarks upon the small amount of conversation carried on at the feast he attended.

bear is uniquely the recipient of special attention, because of the greater power attributed to its "soul spirit."<sup>243</sup> One of the most characteristic observances involves the use of the *nimában* in connection with bear hunting and sometimes other game.<sup>244</sup> "When the hunter finds and kills the bear, he sits down near it and smokes. After having laid the bear out on its back with crossed paws, he puts black tobacco in its mouth,<sup>245</sup> and places the *nimában* on its breast or about the neck. Sometimes before this is done, the hunter places the *nimában* across his head, allowing the ends to fall over his shoulders. He then dances around the fallen game, at the same time singing, thus expressing the hope that he will have to utilize a pack strap often in bringing back game, and voicing his joy at the success of his hunt."<sup>246</sup> If the hunter is unable to carry his quarry to camp alone he will leave the *nimában* on the animal's chest "doubled with its head toward the bear's head." It is believed that "no beast of prey will eat the carcass while the *nimában* is resting on its chest. Possibly the man-smell on the *nimában* may be a safeguard."<sup>247</sup>

<sup>243</sup> Dr. F. G. Speck, "The Spiritual Beliefs of the Labrador Indians." International Congress of Americanists, The Hague, 1924.

<sup>244</sup> See Speck and Heye for full description of these hunting charms. The term *Nimabam* "seems to signify 'dance-cord,' from *nimi*, 'dance,' and the common Algonkian stem—*aban*, denoting 'string,' 'length of something pliable,' which occurs in cognate forms throughout eastern dialects." (p. 8). The one used for a bear hunt (pl. 1) is made of tanned moose skin, decorated, and resembles a pack strap in form. The hunter who has a revelation about game carries it on his person and when he secures the animal dreamed of, he wraps it in the strap and brings it to camp. The decoration on the *nimában* is symbolic in character.

<sup>245</sup> The offering of tobacco is of the utmost importance, as will be inferred from the following anecdote told by Jos. Kurtness (Lake St. John). A number of years ago some hunters killed a bear in the spring. They had run out of tobacco, however, and so the son of one of them set out for Metabetchouan Post in order to get some, so as to properly satisfy the spirit of the bear before eating it. The Post was more than a day's journey distant and by the time the boy returned the meat of the beast had begun to putrify. The hunters preferred to lose their game than to depart from the customary treatment of the bear's carcass, a sensible enough procedure from their point of view, as offending the spirit of the bear might make it impossible for them to kill other animals of the species in the future. As will be noted, tobacco was an offering very generally used by the Algonkian tribes in connection with their bear ceremonies. Swanton (Handbook, II, 403), writing upon the subject "Sacrifice," says that tobacco was "the article by far the most widely used" by the North American aborigines.

<sup>246</sup> Speck and Heye, *Ibid.*, pp. 11-12.

<sup>247</sup> *Ibid.*, p. 18.

In cases where there are several hunters together and a bear is killed, it is customary for them all to sit down around the carcass after the beast has been slain. The oldest man in the group then makes a bark pipe, smokes a while and blows a few puffs into the air before they proceed to eat the bear. The improvised pipe is then thrown away.<sup>248</sup> A variant of this custom was related to Dr. Speck and myself by a member of the Ungava band.<sup>249</sup> In this region the bark pipe is put into the bear's mouth, the hunter who killed him saying, "My grandfather, I will light your pipe."<sup>250</sup> A unique practice of the Davis Inlet people is to lay the gun with which a bear has been killed over the right arm beside the head of the beast for a few minutes.<sup>251</sup>

So far as verbal inquiry goes<sup>252</sup> the eating of a bear's flesh among the Montagnais-Naskapi bands is also an occasion when certain characteristic observances are enforced in order that the spiritual controller of the bear may be satisfied. Some of the most distinctive of these seem to apply to the behavior of women and take the form of specific taboos. That these are an ancient part of the Labrador bear complex cannot be doubted in view of the very brief but interesting account given by Le Jeune in the *Relation of 1634*.<sup>253</sup>

It was early evening when the bear was brought to camp and immediately all the young girls and married women without children left their respective dwellings and retired to a shelter of their own making some distance away.<sup>254</sup> The dogs were also

<sup>248</sup> Baptiste Picard. *Seven Islands*. P. Q. Among the Mistassini no bark pipe is used; each hunter smokes his own stone pipe.

<sup>249</sup> Pitabeno, who was visiting at *Seven Islands*, July, 1924.

<sup>250</sup> *namocúm nekakackwawuc tsucpwāgan*.

<sup>251</sup> Letter, Dr. T. Michelson, March 13, 1924.

<sup>252</sup> A bear feast has not yet been witnessed in any Labrador band by contemporary investigators. The details later given are from the field notes and texts of Dr. F. G. Speck.

<sup>253</sup> *Jes. Rel.* 6, p. 217 seq. Le Jeune was an eye witness of the customs he describes.

<sup>254</sup> One can imagine the distress of the good father at this unchivalrous treatment of the fair sex. He writes that they cannot follow this custom without much suffering as bark is not always available with which to make a new shelter, "which in such cases they cover with branches of the fir tree." On the occasion he refers to "it snowed and the weather was very severe." Cf. Micmac and Finns (Kalevala).

ejected from the wigwam where the feast was to take place.<sup>255</sup> The bear meat was then cooked in two kettles simultaneously, but the contents of each was eaten separately. The men and older women who had remained in camp sat down at the first repast, after finishing which the women left the dwelling. The men then ate the remainder of the animal. This latter meal, evidently more ceremonial in character, was characterized by the "eat all" feature,<sup>256</sup> a custom which is found associated with the eating of bear's flesh among other peoples as well,<sup>257</sup> although it is by no means exclusively connected with the bear, even among the Algonkian tribes.<sup>258</sup> It indicates, however, the seriousness of the whole affair, in that its purpose, like the other customs already discussed, is magico-religious in character, being directed toward the successful capture of game in the future.<sup>259</sup>

<sup>255</sup> Le Jeune says that this was necessary "lest they lick the blood, or eat the bones, or even the offal of this beast, so greatly is it prized." Cf. Comeau, p. 85, who writes, "at certain times bear feasts used to be held, at which no women were allowed to be present and special wigwams were built wherein to hold the feast." Nothing but bear meat, "roasted on the spit, boiled, or stewed" was eaten on such occasions, or puddings prepared from various parts of the animal.

<sup>256</sup> Each person is required to eat the portion of meat given him or, if this is impossible, someone else may usually eat it for him, but at the end of the feast not a morsel must be left. Le Jeune, *op. cit.*, p. 283, writes "They will give to one man what I would not undertake to eat with three good dinners. They would rather burst, so to speak, than to leave anything." Cf. Jes. Rel. v. p. 131.

<sup>257</sup> Cf. Tête de Boule, Eastern Cree, Asiatic Eskimo, Lamut, Aïnu.

<sup>258</sup> Le Jeune (Jes. Rel. ,6, p. 279) gives a dual classification of Montagnais feasts" i.e., the "eat all" or "leave nothing" type and the more ordinary affairs. The former is an affair for the hunters, and women are usually excluded, although he says he has seen "eat all" feasts where both sexes were present. On p. 285 the author writes, "not a word is said; they only sing and sometimes the shaman drums (note Mackenzie's description previously cited). Special care is taken in such feasts to keep the dogs from participating. See pp. 213, 283. This taboo is also mentioned by Le Clerq, p. 291, who refers to similar affairs among the Micmac. For further data see Blair, I, p. 50 and note p. 59 by Tailhan (Central Algonkian); Franklin, p. 71 (Cree) and Harmon, p. 314; Jes. Rel. ,Vol. 50, p. 285 (Ottawa).

<sup>259</sup> Le Jeune, p. 293, gives an astute characterization of it when he says, "it is a banquet of devotion." On p. 283 he writes very explicitly, "they make these feasts in order to have a successful chase" and "the more they eat the more efficacious is this feast." Cf. Le Clerq, p. 129. The difficulties of the "robes noires" in doing their share when attending such feasts is amusingly described" in Jes. Rel.. 7, p. 99, and 9, p. 199. Comeau also remarks the serious nature of the feast and without explicitly referring to the "eat all" feature calls attention nevertheless to the commendation which accrues to those who eat the most. (pp. 86-88).



Contemporary investigation among the Labrador bands reveals various customs, some of which seem to be allied to those already described. Among the Mistassini,<sup>260</sup> for instance, it is necessary for the unmarried women to cover up their faces when a bear's carcass is brought into camp so as not to offend the beast. An infraction of this rule leads to illness. The tent into which the animal is brought must be very clean and the carcass is always covered with a sheet until the feast commences. Only married women may assist the men in skinning the animal. The hide is slit from the throat downward, a procedure motivated by a high regard for the bear, for in the case of other animals the reverse is done.<sup>261</sup> There are also a number of customary regulations governing the cooking and eating of the bear.<sup>262</sup> Among the latter, one of the most widespread and ceremonially important practices is described by Comeau, one of the few white men who have ever attended a Montagnais bear feast. After a large bowl of hot bear's grease had been passed around, the animal's head and neck, which had been roasted on a spit, was stuck up in front of the chief of the band. The latter then made a flattering speech to it.<sup>262a</sup> Then "the end of the spit was raised and a piece bitten out or torn with the fingers, as no knife must touch this sacred *pièce de résistance*. Like the bowl of fat, it went around, and each one had to take a small piece or a bite as he fancied, but no one was allowed to take

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<sup>260</sup> The information regarding this band is based on a descriptive text recorded by Dr. F. G. Speck.

<sup>261</sup> The same practice is followed by the Lake St. John Montagnais the Tête de Boule (in form, J. M. Cooper), and also by the Penobscot. The same reason is given. Cf. the Gilyak procedure.

<sup>262</sup> The right upper limb must be kept intact. It is, therefore, roasted separately on a stick, whereas if it were boiled with the rest of the meat the elbow joint might become softened and the bones come apart. It is eaten by the oldest man in camp. It is also the prerogative of the oldest males to eat the heart and pick the bones. All of the meat must be eaten indoors. The coast Montagnais of Les Escoumains have some different regulations. The head of the bear is put on a birch bark dish and the men eat it with their fingers. Women are forbidden any portion of the head. (MS F.G. Speck).

<sup>262a</sup> "He boasted of the bear's strength and abilities as a tree climber and of its powers of endurance as a faster—referring to its hibernations—and paid it all the other compliments he could think of." Comeau, p. 87.

more.<sup>262b</sup> What was left was then put into the fire and burned for the absent ones,—the deceased hunters.”<sup>262c</sup> Everyone was then at liberty to help himself to the rest of the meat or puddings and when all were satisfied the chief dipped his hands into the bowl of fat which served as the first course of the repast and smeared his hair with it. Each guest did the same and the feast was then over. Comeau also mentions taboos connected with the eating of a bear which emphasize the sexual dichotomy which characterizes the bear complex of these people as well as those elsewhere. The head of the beast is particularly forbidden to women,<sup>262d</sup> a taboo which prevails at Les Escoumains and Michikamau. In some bands a drum dance around the skin is held after the feast<sup>263</sup> and the slayer sings a song.<sup>264</sup> In all cases the eating of a bear is an event of great communal importance, a noteworthy fact since the economic life of these northern hunters severely limits the size and frequency of social gatherings.

*Wabanaki Tribes.*—For the Algonkian peoples south of the St. Lawrence River we have no connected account of ceremonial rites connected with slain bears or any record of special customs or taboos to be observed in eating the flesh. There are, however, a few scattered observations which may be cited.<sup>265</sup>

Among the Penobscot, the bear was roasted whole and the feast participated in by the whole camp or village. “A herald was appointed by the slayer to go through the camp calling *Kewaladèwal!* (Your dishes), meaning for everybody to come

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<sup>262b</sup> Dr. Speck tells me that the coast Montagnais of Les Escoumains put the head of the bear in a birch bark dish and the men eat it with their fingers. A similar custom prevails in the Michikaman band and Skinner refers to it among the Cree.

<sup>262c</sup> Comeau, pp. 87-88.

<sup>262d</sup> p. 85. Children also fall into this category and the paws of the bear are taboo to the same group. Offenders suffer from chronic cold feet.

<sup>263</sup> At Northwest River a bear feast is called *mákásán* and is held whenever a bear is killed. The bones are pounded up and the grease of the bear is served.” There is singing, drumming, and dancing (Information, Dr. T. Michelson).

<sup>264</sup> Baptiste Picard (Seven Islands), Pitabeno (Ungava).

<sup>265</sup> The “Bear ceremony” of the Delaware described by Harrington (pp. 171-176) does not correspond in any feature with the type of observance which is under discussion in our study.

and bring his eating utensils."<sup>266</sup> The Malecite believed that this feast "satisfied" the spirit of the animal.<sup>267</sup>

A very interesting custom of the ancient Micmac is recorded by Le Clerq.<sup>268</sup> The carcass of a bear was always carried into a wigwam by a special entrance made to the right or left of the regular one. This was explained by saying that women did not deserve to pass through the same place by which a bear had entrance to the dwelling. Childless women and girls had to leave the wigwam while the animal was being eaten.<sup>269</sup> Undoubtedly, there were at one time other customs connected with the bear in this area, paralleling, perhaps, those of other Algonkian tribes, but which passed into decadence before any record of them was made.

*Northern Algonkian.*—If an Eastmain<sup>270</sup> hunter is alone when he kills a bear, he cuts off the middle toe and claw of the right forefoot. Upon returning to camp he gives this token to the person who is to carry the body from the woods, usually his wife, if the hunter is married. This individual takes a companion and fetches the carcass.<sup>271</sup> The claw is "wrapped in cloth, beaded or painted, or both, and kept as a memento of the occasion."<sup>272</sup> The beast is laid out, like a man, in front of its slayer's wigwam. Tobacco is placed in the bear's teeth or in its mouth and the "hunter and chief men present smoke over it." At this time the

<sup>266</sup> MS. F. G. Speck.

<sup>267</sup> Information from Gabe Paul.

<sup>268</sup> P. 227. This custom may be connected with the statement of Hagar *htta* in former times each Micmac wigwam possessed a door for each sex and a similar situation among the Penobscot (Inf., F.G.S.) where a young man in training for the hunt used a separate entrance. The special entrance for the bear may, in the former case have coincided with the entrance for the hunters and their game. Cf. Lapps, Gilyak, Ainiu.

<sup>269</sup> It is possible that this is not an independent observation. Le Clerq knew Le Jeune's Relation and may have incorporated certain items of it in his own work.

<sup>270</sup> Skinner (1), p. 69.

<sup>271</sup> The custom of having a woman or some other individual than the hunter bring the game into camp was evidently characteristic of a large number of Algonkian tribes. See Denys, pp. 404, 442, Le Clerq. p. 118 (Micmac); Le Jeune (Jes. Rel., 6), p. 217 (Montagnais), Kohl, p. 412 (Ojibway). There is no mention in these sources, however, of the token which Skinner describes for the Cree.

<sup>272</sup> See fig. 36. Skinner, *op. cit.*

term "black food" must be used and no one must point his finger at the carcass. The latter taboo also applies to bears in the woods. If broken, the animal will turn and run off, "even if he did not see the offender, for his medicine would warn him of the approach of danger."<sup>273</sup>

After the bear is butchered, certain parts, including a piece of the heart, are burnt ("given to its spirit to eat"). The slayer eats the rest of the heart in order to imbibe the "cunning and courage of his victim."<sup>273a</sup> Women are forbidden to eat of the animal's head or paws, men its rump.

Variations of this procedure are reported for other Cree bands, some of them being slightly more elaborate. At Moose Fort, for example, the eating of the bear is conducted in a more formal manner.<sup>274</sup> After the head of the beast was cut off and cooked the males "of the camp sat down in a circle about it. A large stone pipe was laid beside the head and a plug of tobacco placed upon it." The slayer then filled the pipe, lighted it, and each person present, smoked it a little in turn, the slayer initiating the procedure. The bear's head was then passed about and every one strove to bite out a piece of its flesh without touching it with his hands."<sup>275</sup> The "eat all" feature seems to be observed in connection with eating a bear at both Eastmain and Rupert's House.<sup>276</sup>

At Sandy Lake an explanation of these customs was given which, in its fundamental ideology, is undoubtedly of wider provenience among Algonkian hunters of the northern regions. It was said that the bears have a chief whose orders they must obey. He it is who directs a bear to go to a hunter's trap. "When a dead bear is dressed up, it is done as an offering or prayer to the

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<sup>273</sup> Members of the Rupert's House band entertain a similar notion, *Ibid* p. 71.

<sup>273a</sup> Some of the hunters of the Timagami Band eat the heart of every bear killed. Speck (1), p. 26.

<sup>274</sup> Skinner *Ibid.*, p. 71.

<sup>275</sup> This was also the procedure described by informants from Escoumains and Mickikamau (ms. F. G. Speck). Skinner draws attention to a parallel he observed in the Little Waters Medicine Society of the Seneca. A chunk of pork was substituted for the bear's head. This investigator also observes that in this Cree band a similar ceremony was sometimes performed after killing a caribou.

<sup>276</sup> *Ibid.*, p. 71.

chief of the bears to send more of his children to the Indians. If this were not done, the spirit of the bear would be offended and would report the circumstances to the chief of the bears who would prevent the careless Indians from catching more."<sup>277</sup> Among the Tête de Boule,<sup>277a</sup> North Sauteaux,<sup>278</sup> Timiskaming Algonquin,<sup>279</sup> Ojibway,<sup>280</sup> Plains Cree,<sup>281</sup> and Plains Ojibway,<sup>282</sup> although the

<sup>277</sup> Skinner (1), p. 162. Cf. e.g. the Menomini belief. Hoffman p. 177.

<sup>277a</sup> The bear was eaten at one sitting, the men cooked the meat, the skull was placed on the ground before the fire and the hunters sat in two rows facing each other. Food and tobacco were offered to the animal and each man drank at least one dipper of bear grease. Honorific speeches were made to the bear and its generic name was taboo. D. S. Davidson.

<sup>278</sup> Skinner (1), pp. 162-3. The carcass is "dressed up in all the finery obtainable, and is laid out to look like a human being. Women may not eat the tongue and heart. The slayer always gets the brisket, head, and heart.

<sup>279</sup> Speck (2), p. 26. Among these people while the feast on the bear's meat is in progress the chief sticks several ribbon streamers (made from cleft twigs split to hold the ribbon) into the head. "Then the head itself is impaled on a stick and, carrying this in his hand, the chief dances twice around the company, singing a tune to a burden of syllables. After this performance the chief plants the stick with the head upon it in the middle of the spread before all the guests, where it is left." After the feast is over the head is given to the oldest and most venerable man. He takes it home or shares it.

<sup>280</sup> Henry, pp. 143-5, recounting the killing of a bear, says that after it was skinned and they had 'reached the lodge, the bear's head was adorned with all the trinkets in the possession of the family, such as silver arm bands and wrist bands and belts of wampum; and then laid upon a scaffold, set up for its reception within the lodge. Near the nose was placed a large quantity of tobacco." At the feast the next day tobacco smoke was blown into the nostrils of the animal as a very important part of the procedure. Henry was especially urged to do this. *Copway*, p. 30, refers to a bear's head and paws being "festooned with colored cloth and ribbons and suspended at the upper end of the Indians' lodge." Tobacco was also put at the nose.

<sup>281</sup> Skinner (4), pp. 541-2 " . . . a mark is made on its (the bear's) forehead and on the back of its neck with yellow ochre and a pile of red cloth is put on its head. A pipe is offered to all the gods and the dream guardians of those present. The bear is always so treated after having been brought into the slayer's tent where it is laid out in the guest's place." A speech to the bear figures prominently in this case as part of the feast.

<sup>282</sup> Skinner (4), p. 510. At the time the bear was killed the tip of its nose was cut off and a few short sticks were painted, using one of the bear's claws for a brush, and placed with the muzzle. The head with the brisket and paws were next cut off and cooked after which the feast began. During this, he says, "The bear's nose lay exposed nearby, lying amid various sacrificial offerings." "No part of the bear's flesh was taboo to any one," although one informant stated that children should not eat the paws "lest they should acquire the savage nature of the brute while young and impressionable."

data are scanty, similar customs with minor variations were evidently practiced. In addition to a tobacco offering, trinkets, cloth, ribbon or other objects were placed on the carcass or head of the slain bear and in eating of the beast, certain observances and restrictions had to be carried out.

Some of the Assiniboine are reported to practice customs which closely resemble those of the peoples just described, a feature which differentiates them so clearly from the most typical Prairie tribes, that we may group them with the Algonkian speaking peoples.<sup>283</sup>

*Central Algonkian.*—The evidence for bear ceremonialism in this region is scanty but, from the accounts recorded by early observers, it seems quite certain that rites similar to those found in other Algonkian tribes at one time existed. Perrot refers to the custom of placing a pipe in a dead bear's snout and blowing smoke into its mouth; also to the practice of preserving the tongue string and using it for purposes of divination.<sup>284</sup> In the Jesuit Relations<sup>285</sup> and Charlevoix<sup>286</sup> we find practically identical statements regarding a people located on the Bay of Puans who may have been a branch of the Forest Pottawatomi. They not only venerated the bear, but held a feast in which the painted head of

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<sup>283</sup> De Smet (1), p. 139. "The Assiniboine address prayers to the bear. They offer it sacrifices of tobacco, belts, and other esteemed objects. They celebrate feasts in its honor, to obtain its favor and to live without accidents. The bear's head is often preserved in the camp during several days, mounted in some suitable position and adorned with scraps of scarlet cloth, and trimmed with a variety of necklace collars and colored feathers. Then they offer it the calumet, and ask it that they may be able to kill all the bears they meet, without accident to themselves in order to anoint themselves with his fine grease and make a banquet of his tender flesh."

<sup>284</sup> Blair, I, pp. 128-9. The string was heated and by its crackling and twisting, one was able to predict whether or not other bears would be killed. The passage which appears in Charlevoix (p. 118) referring to the same custom is so similar in both content, sequence of details, and even diction, that it is fairly evident that Perrot was the source from which it was taken. We have previously drawn attention to other reasons for our suspicions in the discussion of the paw-sucking belief.

<sup>285</sup> Jes. Rel., LVI, p. 127. "Carefully saving the animal's head, they paint it with the finest colors they can find and during the feast, they place it in an elevated position, to receive the worship of all the guests and the praises they bestow upon it, one after another, in their choicest songs."

<sup>286</sup> p. 300

the beast was placed in an elevated position where homage was rendered to it. Father Allouez<sup>287</sup> says that the Miami "ate the bear at the beginning (of the feast) and afterward they adored its skin."

Among the Menomini there seems to be the trace of a ceremonial feast, perhaps originally connected with the bear alone, but which is now ostensibly made to the *sun* after a bear is killed.<sup>288</sup> Although objectively it suggests certain features of the bear feasts of other Algonkian peoples, the erection of a pole to which is attached a deer skin with a representation of the sun upon it, savors of Plains practices. On its subjective side, also a cultural emanation from this direction seems evident. The host, for instance, must have dreamed of the sun and thus obtained war powers in consideration of such sacrifice. The sun is also addressed in the course of the ceremonies. Nevertheless, the fact remains that the occasion for the affair appears to be the killing of a bear; the head is dished up separately and eaten only by the braves and the bones of the beast are treated in a way similar to that of the northern and eastern Algonkians. These features suggest some relationship to the custom of the latter tribes.<sup>289</sup>

#### *Southeastern area*

No rites accompanying the killing or eating of a bear have been reported for the peoples of this region or for Iroquois tribes.<sup>290</sup>

#### *Mackenzie area*

For the northern Athabascans of the Canadian forests and tundra, ethnological details are so scanty, or entirely lacking, that it is impossible to make any positive statement regarding the occurrence or absence of such practices as we have under review.

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<sup>287</sup> Jes. Rel. of 1672, Chap. XII (quoted Blair, I, p. 132, note 99).

<sup>288</sup> Skinner (3), p. 213.

<sup>289</sup> Cf. Skinner's statement (5), p. 177. A much more aberrant practice attributed to the Fox (see Owen p. 55) is the scalping of a bear after killing it and, if we understand correctly, the cremation of the rest of the body.

<sup>290</sup> Except the customs observed by members of the Little Water Society of the Seneca already referred to. It seems quite likely that the Iroquois, since their intrusion into an area previously peopled by Algonkian tribes, should have absorbed some of the customs of the latter.

When we take into account, however, the other traces of bear veneration found in some of these tribes, scanty though they be, as well as basic northern culture traits which these peoples share with the Algonkian peoples of the sub-arctic northeast, it is not unlikely that future investigation may reveal traces of bear rites comparable to those found elsewhere in the north.<sup>291</sup>

### *Plateau area*

The tribes of this region have been sufficiently investigated for us to state with a fair amount of certainty that no ceremonial treatment of a bear's carcass was practiced, although the animal was held in high repute and certain other customs, as we shall later see, are found in this area which connect it with eastern North America and Asia.<sup>292</sup>

### *Plains area*

Although the people of the Plains had a high respect for the bear,<sup>293</sup> yet we do not find that any rites were performed in connection with the slaughter of the animal except by the Plains Cree, Plains Ojibway, and the Assiniboine.<sup>294</sup> Indeed there seems to have

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<sup>291</sup> Chapman, p. 304, writes that the Tinnah of the Lower Yukon, when hunting bears or other animals, believe they are "really hunting souls, which have those forms as presentments." The spirits of the game are charmed by songs. In respect to the bear he says that women are forbidden the meat and that the men eat the beast's heart to obtain courage. No information regarding the treatment of the bear after killing it is given.

<sup>292</sup> Curtis, vol. VII, pp. 140-1, describes a Kutenai ceremony which he says was observed in the spring in order to secure immunity from attack by grizzlies. It was initiated by the man who first dreamed of a bear at this season and each participant wished the animal good luck during the summer and petitioned the same fortune for himself. The animal was also asked not to send illness. A kind of altar, of which a bear skull was the central feature, was arranged in the dreamer's lodge and the people of the village came in to make their supplications. The occasion for this ceremony, as well as its objective features, and its whole psychological content are radically different from the features of the complex under discussion in this paper. It obviously has nothing to do with the hunting and killing of the animal and the consumption of the flesh which is the economic matrix in which the ceremonies under discussion so especially function.

<sup>293</sup> See, e.g., Schultz, p. 106; Belden, p. 137; G. B. Grinnell (personal communication 11.18.24); Reed, p. 238.

<sup>294</sup> We may assume, I think, that the contact of these peoples with northern tribes of a forest culture who have bear rites is responsible for this fact. Their geo-



been some hesitancy about killing grizzly bears at all in some tribes<sup>295</sup> and even though killed the flesh of bears was not always eaten.<sup>296</sup> Bear skins were not always utilized either, which may be connected with the taboo mentioned by several writers which forbids a woman to handle a bear's hide.<sup>297</sup>

### *North Pacific Coast area*

Although the bear, as compared with other animals, played a relatively unimportant role in the beliefs and practices of the Indians of the North Pacific Coast, whose culture was so much more elaborate and distinctive than the peoples we have hitherto described, yet there are indications that rites were formerly observed which are comparable to those recorded for tribes east of the Rockies on the one hand, and Asiatic customs on the other.

The data which are available come from three representative peoples, the Nootka, Kwakiutl, and Tlingit.

Jewitt gives the earliest description for the Nootka.<sup>298</sup> "After well cleansing the bear from the dirt and blood, with which it is generally covered when killed, it is brought in and seated opposite the king in an upright posture, with a chief's bonnet, wrought in figures, on its head and its fur powdered over with the white down. A tray of provisions is then set before it, and it is invited by

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graphical position suggests it and there is other evidence. See e.g., McGee (15 Rep. B.A.E.), p. 189 ff. and Skinner (4), p. 529. Cf. Wissler (1), p. 208.

<sup>295</sup> Grinnell, I. p. 290, says the Cheyenne kill black bears but not the grizzly; Belden (p. 137) and Schultz (pp. 106, 109) cite this sort of an attitude for the Crow, but cf. Lowie (3), p. 358, who refers to the use of a tanned bear hide in the Bear Song Dance. This ceremony, it may be noted, is periodic and has nothing to do *per se* with the killing of a bear or the propitiation of the animal's "spirit"; "it united all those harboring in a mysterious manner an animal or some object in their bodies." On hearing the song these individuals were compelled to show the object or animal part to the spectators.

<sup>296</sup> Mr. Grinnell writes me: "I do not think that I have known of the eating of the flesh of the grizzly bear, and, in fact, I might say of any bear, by any of the plains people." This is in marked contrast to other peoples, notably those of the north and Asiatic tribes too, who greatly relish bear meat.

<sup>297</sup> e.g., Cheyenne (Grinnell, II, pp. 105, 198); Blackfoot (Schultz, p. 110 seq.). Grinnell in a letter remarks, "I feel sure that I have never seen a bear hide in a Blackfoot lodge."

<sup>298</sup> Pp. 95-96.

words and gestures to eat. This mock ceremony over, the reason of which I could never learn, the animal is taken and skinned, and the flesh and entrails boiled up into a soup, no part but the paunch being rejected." He adds that this is called "dressing the bear," an occasion of "great rejoicing throughout the village."

The account which Curtis gives of the Kwakiutl is also worth quoting. The procedure closely parallels that given by Jewitt, although several details of interest are added. It is to be noted that he states that the ceremony follows the killing of the *first* bear of the season. "The hunter," he says, "would bring it to the village, and while yet a short distance away he would call, 'I have a visitor!' Then all of the people very solemnly and quietly would assemble in his house. The bear was placed in a sitting posture in the place of honor at the middle of the back part of the room, with a ring of cedar bark about its neck and eagle down on its head. Food was then given to each person and a portion was placed before the bear. Great solemnity prevailed. The bear was treated as an honored guest, and was so addressed in the speeches. The people, one by one, would advance and take its paws in their hands as if uttering a supplication. After the ceremonial meal was over, the bear was skinned and prepared for food."<sup>299</sup> Another Kwakiutl procedure is described as follows: "When a black bear is killed, the hunter steps up to it and says: 'Thank you, friend, for meeting me. I did not do any harm to you. You came to meet me sent by our creator that I should shoot you that I may eat together with my wife and friend.' Thus he says and after he has said this he turns the bear over and places the blade of the knife at the chin of the bear and pretends to cut it. This is repeated three times. The fourth time he really cuts. He takes off the skin. Then he takes the skin with the right hand at the head and with the left hand at the small of the back, holds up the skin, and if it is a female bear he will say, 'Now, friend, call your husband to come

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<sup>299</sup> Curtis, x, p. 38. Goldenweiser (1), p. 207, quoting from unpublished MS material of Dr. Boas, refers to ceremonies connected with slain land-otters, beavers, raccoons, and martens, which are quite different in character. He says that a bear is treated similarly "or a loop is put through its nose, and the body is then hung up in a corner of the house."

to me also.' Then he throws down the skin on the body of the bear. He takes it up again and says, 'Now call your father to come here also.' Again he throws down the skin and says, holding it up, 'Oh friend, call your mother to come here also.' Then he throws down the skin on the body. He holds up the skin and says, 'Now call your children to come here also, and throws down the skin on the body. Then the hunter himself answers his prayer saying, 'I am going to do so.'<sup>299a</sup>

Among the Tlingit, it was the head of a slain grizzly which was "carried indoors and eagle down and red paint were put on it."<sup>300</sup> The Tsimshian, after skinning a bear, painted it with red ochre on the back, "forming a line running from head to tail." Some of it was also put under the arms.<sup>301</sup> We have no record, however, of any treatment of the carcass or head such as has been just described for the Nootka, Kwakiutl, and Tlingit.

In the southern and altogether less typical reaches of the North Pacific area we do not find any traces of bear ceremonialism.<sup>302</sup>

#### *California—Great Basin*<sup>303</sup>

An examination of data on California tribes, respecting a ceremonial treatment of slain bears, yields almost completely negative results. Powers<sup>304</sup> says that the Wailaki performed a dance after killing a bear and one of Gifford's Miwok informants said that, in former times, it was customary to show respect "to the bear, the eagle and the falcon after any of these had been killed. This was done by laying the body of the slain creature on a blanket and having a little feast in honor of it when it was brought to the hunter's home." This was not a ceremony in any way connected with the moieties or totemic groups. Its purpose was to appease the animal or its spirit.<sup>305</sup> It is possible, of course, that such a

<sup>299a</sup> Letter Dr. Franz Boas.

<sup>300</sup> Swanton (2), p. 455.

<sup>301</sup> Boas (7) p. 283.

<sup>302</sup> Among e.g. the Coos, Siuslaw, Alsea (Yakonan), Kalopuya, Molala (Wailatpuaw), Quileute. Letter Dr. Leo J. Frachtenberg Dec. 26, 1924.

<sup>303</sup> See Kroeber (1) for a characterization of this area.

<sup>304</sup> p. 118.

<sup>305</sup> Gifford (1), pp. 144-5. Through correspondence with Mr. Gifford, I was able to ascertain that no further details regarding this custom are available. Letter March 31, 1924. Cf. remarks *re* condor, *op. cit.*, p. 157.

ceremony may represent a remnant of more elaborate rites and beliefs connected with bears, but on the other hand, it may merely indicate an extension to the bear of ceremonials practiced in connection with the other animals mentioned, or a pattern equally applicable to all animals.

The Ute<sup>306</sup> and Southern Paiute<sup>307</sup> perform a Bear Dance intended to conciliate the animal before it emerges from its winter hibernation<sup>308</sup> but there is no record of any ceremonies connected with the hunting and killing of the bear. "Before the ceremony," however, "the picture of a bear is made on cloth and fastened flag-fashion to a tall staff, which is set in the rear of the dance ground."<sup>309</sup> According to Reed, the enclosure in which the dance is performed symbolizes the bear's den and the performance itself, the gradual restoration of the animal from its winter repose.

#### *Southwest area*

In several of the Pueblo towns,<sup>310</sup> it was customary after killing a bear, to treat the animal like a dead human enemy, the slayer of the bear being called war chief for the time being.<sup>311</sup> Beads were strung around the dead bear's paws<sup>312</sup> and there was formerly a war dance.<sup>313</sup> Eaters of bear meat had to paint their faces black. At Jemez there is a dance for a dead bear and also a ritual to convert the dead enemy into a friend.<sup>314</sup> At Zuni the crania of

<sup>306</sup> See Reed and Lowie (1), pp. 823-31. It is called *mamaquikap!* Lowie comments, p. 823, that "the native name is said to contain no reference to the bear."

<sup>307</sup> Lowie (2), pp. 299-302. According to this observer it has been recently borrowed from the Ute and appears to be a purely social affair.

<sup>308</sup> There is a certain similarity in motivation, but not in objective features, to the ceremony of the Kutenai. Cf. also R. B. Dixon (3), N. Maidu, pp. 295-6, who describes a dance supposed to make the bear less dangerous to the hunter. Observances which are part of the preparation for the hunt, however, are outside of our subject.

<sup>309</sup> Lowie (1) p. 827 and fig. 3.

<sup>310</sup> Hopi and Tewa of First Mesa. (I am indebted to Dr. E. C. Parsons for the following information on the Pueblo area.)

<sup>311</sup> *Kahlektaka* (Hopi), *p'otali* (Tewa).

<sup>312</sup> In the case of deer they were put around the throat and corn was put on the heart and in the mouth.

<sup>313</sup> Dr. Parsons' middle aged informant had never seen a bear killed.

<sup>314</sup> "The slayer of a bear is expected on his return to town to stop about a mile out, and to shout as in war. All the men go out with rifle to meet him, each receiving

bears as well as those of other animals are placed in a cave with prayer sticks. Other animals, such as the deer<sup>315</sup> and antelope,<sup>316</sup> are likewise the object of ceremonies after being killed.

There is also an association of the bear with medicine in most of the Pueblos (Hopi and Taos excepted).<sup>317</sup> The animal "is the doctor *par excellence*." At Zuni, e.g., "White bear and Black Bear are foremost among the medicine animals of the curing society. They are represented on the painted slats of the society altars,<sup>318</sup> and as stone fetiches. Prayer-sticks are offered to the Bear by the society members and the animal appears as a Kachina in the mask cult." Bear paws or claws appear in the paraphernalia of shamans or society doctors.<sup>319</sup>

a piece of bear meat which he wraps around the barrel of his rifle. They all ride into town, the slayer in their midst, across his horse the bear. The women come out, armed with pokers and with which they strike at the bear. Singing, the men escort the slayer to his house. The relatives of the slayer tie feathers, and take them and meal to the chiefs of the Arrow head society and the Fire society, asking them to wash the bear for them. The chiefs say yes, and they are given four days in which to prepare. On the fifth day the altar (only one altar, that of either society) is set up, in any room large enough, and the ceremony is performed. The appointed *opi* attend, dressed as Masewi. Besides the lathing (*ahu*), the legs of the bear are cut off and given to a member of the society which has set up the altar. The recipient becomes the younger brother of the slayer. Food is contributed by the *opi*, to be eaten by any visitors, males; no women attend the ceremony. Whatever food is left over is kept by the society members." (Dr. Parsons' MS).

<sup>315</sup> Stevenson (2), p. 440. Mrs. Esther Goldfrank has collected data at Isleta pertaining to these customs.

<sup>316</sup> Stevenson (1), p. 120; also (2), *op. cit.*

<sup>317</sup> "Probably other Tanoan towns also," writes Dr. Parsons, "but not including Jemez. Among the Tewa of First Mesa, neighbors of the Hopi, the old term for doctor is *kíeh*, bear. Their Bear Kachina, with bear hide and paws, is said to have been brought by them from their Rio Grande home." At Taos, "there is a Bear society in charge of a winter ceremonial, and the supreme war spirit is Red Bear, to whom prayer feathers are offered." There is also a society which cares for persons wounded by bears "Informants insist that they have not the bear medicine of the other Pueblos, of which they are much afraid." Dr. Parsons thus concludes that at Taos the animal is associated only with war, not with medicine.

<sup>318</sup> M. C. Stevenson, The Zuni, 23 Rep. B.A.E. (2)

<sup>319</sup> Keres, Jemez (Dr. Parsons' MS), Isleta (communication, Mrs. Esther S. Goldfrank). Cf. Dumarest, p. 187; Stevenson, (1). For additional information in respect to the bear's medical aspect consult Parsons (1), pl. IV, p. 120; Dumarest, pp. 187, 199, n. 5, pp. 234-6.

As Dr. Parsons points out, therefore, the bear "has both characters, war and medicine, among the Pueblos,<sup>320</sup> in some places, one character being to the fore, in other places, the other."

### *Eskimo area*

Although there were many taboos and special observances practiced in connection with the hunting of game animals<sup>321</sup> by the American Eskimo and some of these applied to the bear, yet there were no ceremonial rites observed after killing these animals comparable to those found elsewhere. In some groups it is customary to attach the bear's bladder,<sup>322</sup> and sometimes other parts,<sup>323</sup> to a stick which is placed upright near an encampment for three days.<sup>324</sup> On the West coast of Hudson's Bay "a piece of the tongue and other small parts are hung up in the hut, and knives, saws, drills, and other small objects are attached to them as

<sup>320</sup> The Indians of the S. W. are not unique in the medical character they impute to the bear, although the information for other peoples is far from satisfactory. The Cheyenne believe the bear can cure itself if wounded (Grinnell, II, p. 105). See also Densmore, p. 195; for the E. Cree, Skinner (1), p. 76, says that the bear is considered to have greater medicine powers than mankind; the Penobscot also say that the bear knows a great deal about medicine. Barrett's "Pomo Bear Doctors" is interesting in this connection.

<sup>321</sup> See, e.g., Boas (1), p. 595, for customs connected with the Sedna myth, also (2), p. 119 *seq.*, and for miscellaneous observances p. 489 and p. 499 ff.; Nelson, pp. 379-393, for an account of the Bladder Feast. Mr. D. Jenness has kindly furnished me with the following excerpt from G. M. Stoney, *Explorations in Alaska*. Proceedings of the U. S. Naval Institute, vol. xxv p. 839. It refers to the Eskimo of the Kobuk River, Alaska. The bear (species uncertain) is skinned and the head cut off. The latter is then taken by a hunter who "standing astride the body with the head in both hands, raises it high in the air and lowers it three times, touching the body each time just over the heart and muttering an incantation. After the third touch he throws the head with all his might so as to hit the same spot over the heart and utters a loud shout in which all the natives join." This ceremony drives the bear's spirit to the mountains. The abdomen of the bear is not opened in the presence of white men and certain parts must be left on the ground.

<sup>322</sup> Boas (1), p. 596 (Central Eskimo).

<sup>323</sup> Boas (2), p. 124. The Cumberland Sound people take the animal's "bladder milt, sweetbreads, and gall, and some man's tools, such as fire drill, knife, spear point, and file and hang all on a pole." When a female animal is killed the same parts are hung up with women's tools.

<sup>324</sup> This is the period during which the bear's soul remains near the place where it left the body, Boas (2), p. 124. Work is sometimes suspended for the same period after a bear is killed. See Boas (2), p. 147. Cf. C. F. Hall, II, p. 575.

presents to the bear's soul. It is believed that then the soul will go to the other bears and tell them how well it has been treated so that the others may be willing to be caught.<sup>325</sup> At the end of three days, the man who killed the bear takes down the objects, carries them out into the passageway, and then throws them into the house where the boys stand ready to get what they can. This symbolizes the bear spirit presenting these objects to the people. The boys must return the objects to their owners. During these three days, the women are not allowed to comb their hair."<sup>326</sup>

#### EURASIA

In Siberia and northern Europe we find plenty of evidence which points to the widespread distribution and probably ancient character of the custom of treating slain bears with ceremonious respect. Yet the actual observances themselves show a considerable range of variation, and the degree of elaboration to which the rites have been carried differs enormously in the various regions surveyed. Lacking the well defined areas of culture characterization which have been worked out for North America, and which were followed in our summary of bear rites on that continent, I have, nevertheless, followed a regional grouping of peoples in reviewing the Eurasian material also. That is to say, I have classified together the tribes whose bear rites are sufficiently similar to enable one to say that they are more like each other in this respect than they are to the people of any other region. The customs of the northeastern Siberians are first discussed. These tribes have very simple rites and they are not as exclusively practiced in connection with bears as is the case elsewhere. Central Siberia is taken up next, then Western Siberia, followed by the Finns and Lapps of Northern Europe. Finally, there is a return to eastern Asia, to what I have termed the Amur-Gulf of Tartary region. It includes the tribes of the islands of Saghalin and Yezo as well as the Amur peoples. I have postponed a description of the rites performed in this region until last because it is here that the typical

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<sup>325</sup> This idea finds its closest parallels among Asiatic peoples.

<sup>326</sup> Boas (2), p. 501.

bear festival occurs,<sup>327</sup> a periodic celebration prepared for long in advance and altogether a very elaborate socio-religious event. It is never performed in connection with any other animal and the beast is clearly the focus of all the important steps in the ritual. In short, bear ceremonialism reaches its peak in the Amur-Gulf of Tartary region and after a description of the Gilyak and Ainu festivals, we shall indicate the probable connection between these elaborate ceremonies and the simpler rites which are practiced so much more extensively.

### *Northeastern Siberia*

The observance of certain rites in connection with slain animals is one of the most characteristic features of the ethnology of the northeastern Siberian tribes. Consequently, we find that in some cases the ceremonies performed after killing a bear in no wise differ, in their general or even specific features, from those of which other animals are the object. The purpose of these ceremonies seems to be connected with a conceptualization of nature which is common to all of these peoples. It is believed that the natural features of their environment and the various species of animals with which they are acquainted all have their respective spiritual "owners" or "masters."<sup>328</sup> It is only through the beneficence of these "owners" that the game animals may be caught, for these creatures are under supernatural control. The notion is also held that the spirit of the slain animal will report to its congeners the kind of treatment it receives at the hands of man; hence the cordial reception and hospitality rendered such creatures

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<sup>327</sup> Usually an annual event in each community.

<sup>328</sup> See Jochelson (2), p. 234. This investigator defines them as "invisible, anthropomorphic beings dwelling in one or another division of nature, or in separate objects which they possess. They live, like men, in families. Generally, the Owners are benevolent deities, provided men observe the customs established in regard to them, and do not transgress certain taboos. Only the Yakut Owners . . . are spirits inimical to man." The concept is less clearly developed among the Koryak (Jochelson [3], p. 30) than in the other tribes. The Yukaghir "believe that each species of animal has its protector, *mōyé*, who is subject to the main owners, and an individual protector, *péjul*," as well. Without the latter's consent the animal cannot be killed. This spiritual guardian of the individual animals is not paralleled in the other tribes. (Jochelson [2], p. 146).



as the whale and the bear. If properly treated, animals will be caught again and again; if not, poor hunting luck will result. It must be emphasized, however, that the animal *per se* is not *conceptually* the focus of the ceremonies, although all of the objective demonstrations might lead one to suppose so. It is characteristically the spirit "owner" of the animal which seems to be of prime importance, the animal being more or less subject to the control of this supernatural being.

*Asiatic Eskimo*.—A ceremony is performed over slain polar bears by the Asiatic Eskimo,<sup>329</sup> which is similar to that observed by them any time that a whale is killed.<sup>330</sup> After being brought to the village the carcass of the bear is skinned, "but the head, the neck and the shoulders are left with the skin. This receives a "drink"<sup>331</sup> before the entrance (to the hut), and a sacrifice of sausage, and is then brought into the house and into the sleeping room, where it is put on the master's side and in the place of honor. ". . . a big lamp burns all the time near the symbolized game; also a *pinte* fire,<sup>332</sup> which figures in all the ceremonials of the Chukchee." The head and skin are left in position for five days and nights during which period constant attention is paid to them. Both men and women, for example, will take off their bead necklaces and hang them over the "bear's" neck. Frequent libations of water and sacrifices of various meats are also made. In fact Bogoras says that when a bear (or whale) is in the house "neither of them is left alone for a moment" . . . because, it is said, "the guest will feel lonely." Loud noises are also taboo, lest "the guest should be awakened from his repose."<sup>333</sup> "All the drums are hung in the outer tent, near the entrance" and if one of them is accidentally struck it is beaten lightly as if in punishment. The chil-

<sup>329</sup> Polar bears are, however, very scarce on the Pacific shore. Bogoras (2), p. 406.

<sup>330</sup> *Ibid.*, p. 407.

<sup>331</sup> i.e., a libation of warm water is poured over the head of the animal, a characteristic Chukchi practice as well. Cf. Boas (2), p. 147-8, who refers to the same practice in connection with seals by the Eskimo of the west coast of Hudson Bay and (p. 489) Cumberland Sound. No mention is made of a similar treatment of bears.

<sup>332</sup> A special fire before the entrance to the dwelling made especially for sacrificial purposes. See Bogoras (2), p. 378.

<sup>333</sup> *Ibid.*, p. 407.

dren are not allowed to be noisy or boisterous, but should they be so, a drum is lightly beaten in expiation of the "uncivil behavior toward the guest." After the ceremonial period has elapsed the head is "cooked in a big kettle and then a feast is arranged, to which all the neighbors are invited. The meat of the head must be entirely eaten.<sup>334</sup>"

*Chukchi*.—While the animals with which ceremonials are connected are not identical among the Reindeer and Maritime Chukchi, the essential features of the rites observed conform to the same fundamental pattern. Thus, the ceremony which the Reindeer Chukchi observe after the killing of the wild bucks found in the herd during the rutting season, is homologous with the rites performed over a bear's carcass and over that of other animals.<sup>335</sup> It is likewise similar to the observances after the hunt of the walrus and seal by the Maritime Chukchi and Asiatic Eskimo.<sup>336</sup>

The essential features of the ceremony are as follows: Reindeer are slaughtered,<sup>337</sup> a sacrifice to the fire is made,<sup>338</sup> ceremonial dishes are cooked, the head of the bear is taken indoors where it is greeted with songs and drum beating. Sometimes the master of the house will put on the bear's skin so that the skin of the animal's head covers his, and the rest of it hangs behind.<sup>339</sup>

<sup>334</sup> *Ibid.*, p. 408. Cf. Nelson's description of the Eskimo bladder festival, p. 383. Bogoras, in a footnote, says that Steller reports that among the Kamchadal "it is forbidden to sing aloud when a fresh sable-skin is brought into the house."

<sup>335</sup> Bogoras (2), pp. 379-381. The wolverene and elk are considered worthy of such rites.

<sup>336</sup> *Ibid.*, p. 379. "Since the ceremonial connected with the hunt of walrus and larger kinds of seal is performed about the same season and with somewhat similar details by both the Maritime Chukchee and the Asiatic Eskimo, it is my opinion that the purpose of this ceremonial is to celebrate success in the hunt. I believe it is connected with the bucks killed in the herd simply because they represent among the Reindeer Chukchee the most important game hunted. With the Reindeer Chukchee the ceremonial has a special name, *ênalčûrgin*. The Maritime Chukchee call the ceremonial connected with walrus-hunting by this name; and the Maritime Koryak apply it, with the proper phonetic change, to the ceremonial of the whale."

<sup>337</sup> Cf. *ibid.*, p. 380. The Maritime Chukchi can, of course, only slaughter dogs when a bloody sacrifice is required (p. 386). Only polar bears are found in the habitat of these people. (Verbal information, Dr. Jochelson.)

<sup>338</sup> Cf. *ibid.*, p. 378.

<sup>339</sup> *Ibid.*, p. 3 1.

At other seasons than the fall, the ceremonies are much simpler in their character.<sup>340</sup> After the hunt of the bear, and, in fact, any of the larger animals, the beast will be given a "drink"<sup>341</sup> and a "bed."<sup>342</sup> The Maritime people practice the "drink giving" in connection with all of the animals killed on the hunt but they often omit giving them a bed.

*Koryak*.—Ceremonies are performed when bears are slain by both the Maritime and Reindeer Koryak.<sup>343</sup> When the dead bear is brought into the house, the women come out to meet it, dancing, with fire brands. The bear skin is taken off with the head, and one of the women puts on the skin, dances in it, and entreats the bear not to be angry, but to be kind to them. At the same time some meat is put onto a wooden platter, and they say, "Eat, friend."<sup>344</sup> The food referred to, is presented to a wooden figure representing a bear.<sup>345</sup> The final act of the ceremony is to equip the beast for the "home journey."<sup>346</sup> The Maritime Koryak

<sup>340</sup> *Ibid.*, p. 381. They resemble more closely the procedure followed by the Asiatic Eskimo in the case of the bear, already described.

<sup>341</sup> i.e., *ibid.*, p. 378. Also note on Asiatic Eskimo.

<sup>342</sup> *Ibid.*, p. 378. This is symbolized by "placing a small willow-twigg under the hind-quarters of the carcass for a bed." Giving the animals a "bed" seems also to be absent from the animal ceremonies of the Asiatic Eskimo.

<sup>343</sup> Jochelson's descriptions are based on verbal information. He says that the "ceremonies performed after hunting wild reindeer or other land animals are the same among the Maritime and Reindeer Koryak. They are particularly elaborate after successful bear or wolf hunting." (3), p. 88.

<sup>344</sup> Jochelson (3), pp. 88-9. Both the Maritime and Reindeer Koryak perform similar rites after killing a wolf. (*Op. cit.*) Bastian, III, p. 26, mentions the ceremonies for bears and wolves.

<sup>345</sup> See *ibid.*, fig. 39. This feature is analogous to the whale festival of the Maritime people in which an image is used, p. 72.

<sup>346</sup> As in the case of the whale, also, the notion is entertained that the animal killed has come on a visit to the village and must be well treated in order to secure good hunting in the future and also to protect the people from any anger on the part of its congeners. Speaking of the whale, Jochelson (*op. cit.*, p. 66) says that it will return to the sea to repeat its visit the following year, and that, if hospitably received, it will bring its relatives with it when it comes again. Hence, it is symbolically equipped with grass traveling bags filled with puddings for its return to the sea. The home-sending of the bear is called *kévīnāčixtathiyñin* (bear service), p. 88. The term for the brown bear is *koiñin*. *Ibid.*, p. 554. The wolf rites lack the equipment for the home journey as the animal is not used for food, and its return is obviously not desired. It is feared more on account of the supernatural potencies attributed to it than of ferociousness, see p. 98.

prepare puddings for it and travelling provisions, the former being put into an especially plaited grass bag. "The Reindeer Koryak slaughter a reindeer for the bear,<sup>347</sup> cook all the meat and pack it in a grass bag. The bear skin is filled with grass, taken out and carried around the house, following the course of the sun, and then sent away in the direction of the rising sun. The stuffed bear and the bag are put on the platform of the store house, and after a few days the skin is taken back to be tanned, and the puddings are eaten."<sup>348</sup>

*Kamchadal*.—The available data regarding these people are of the most meager kind. Although they are inveterate bear killers,<sup>349</sup> their rites are of the simplest sort. One early observer says that it was their custom to stick a knife into each eye of the beast before skinning it.<sup>350</sup> The honor accruing to the hunter who kills a bear is especially emphasized in the early accounts, and to the feast which followed, friends and neighbors were always invited.<sup>351</sup> Georgi refers to the practice of handing a piece of meat to a guest who "grasps it in his hand, takes a bite, and passes it to his next neighbor." In one account it is said that during the feast the host would produce the beast's head, wrap it in grass, and hang various

<sup>347</sup> As do the Reindeer Chukchi at certain seasons. The Koryak also make a similar sacrifice after killing a wolf, p. 90. Consult Jochelson's discussion of bloody sacrifices, p. 90 *seq.*

<sup>348</sup> *Op. cit.*, p. 89.

<sup>349</sup> Dr. Jochelson tells me that as many as 100 bears are killed in a single season. Their principal economic pursuit is fishing and nowadays, at least, they hunt sea mammals very little.

<sup>350</sup> Dobell, vol. I, p. 19. "This they said was absolutely necessary as bears sometimes have been known to recover, even after several severe wounds, and kill the persons who had cut open their bellies with an intention of skinning them." "Whereas," said they, "if their eyes had first been put out, they could not have seen anything, and those persons would have escaped." The author also attributes the custom of blinding the bear to the Koryak. *Ibid.*, p. 185. The Gilyak (Amur) put out the eyes of seals that they have killed in order that the spirits of the slain animals may not be able to recognize their slayers and spoil the hunt in revenge (Von Schrenck, III, p. 546). The Samoyed cut out the eyes of slain reindeer and bury them in order to ensure good luck in the future (Pallas, III, p. 70).

<sup>351</sup> Krashenninnikoff, p. 103; Steller, p. 330; Georgi, III, p. 154.

bits of meat around it.<sup>352</sup> Respectful and hospitable treatment was also due other animals, to which food of one sort or another was usually offered.<sup>353</sup>

*Yukaghir*.—The Yukaghir, while they do not treat the carcass of a slain bear with the same ceremonial detail as some of the other tribes, maintain an attitude of high respect for the animal.<sup>354</sup>

*Lamut*.—In the case of the northern Lamut the only positive hint which we have is contained in the statement of Bogoras<sup>355</sup>, that they consider the brown bear to be a "shaman and a sorcerer, and in hunting him, they perform many ceremonies for the purpose of appeasing his anger." The meat must "be boiled all at once and eaten by the neighbors of the hunter gathered for the feast, without reserving any for the future." This applies especially to the head.<sup>356</sup>

### Central Siberia

*Tungus*.<sup>357</sup>—Miss Czaplicka says that bear veneration is "especially highly developed" among the Northern Tungusic peoples. "When a bear is killed and brought home, a ceremony called *kuk* is held." The heart and liver are cooked and eaten by the men. No women are permitted to be present. "Each person, before eating his piece, bows before the bear and assures him that it was the Russians who killed him, and not the Avankil (Tungus)." It is possible that the carcass or skin of the beast was also the focus of some attention, but of this we cannot be sure, and I have been

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<sup>352</sup> Steller, p. 331. A somewhat similar treatment of seals' heads is described at length by Krasheninnikoff, see Grieve (pp. 118 *seq.*). These creatures are apparently equipped for the home journey, as are the whale and bear among the Koryak.

<sup>353</sup> *Ibid.*, pp. 85, 280. On p. 276 he refers to the whale, wolf, narwhal, and bear as being especially venerated.

<sup>354</sup> Verbal information, Dr. Jochelson.

<sup>355</sup> *Op. cit.*, I. 325. The bear is thought to be the elder brother of Torga'nra, the ancestor of the tribe.

<sup>356</sup> Bogoras (2), p. 408.

<sup>357</sup> See Czaplicka (1) for the subdivisions of the Tungusians. They were originally hunters and fishermen, but in the course of constant peregrinations they adopted various modes of economic life. They are late arrivals in Siberia, their home being in Manchuria (Laufer (5). p. 121).

unable to discover any observances of this nature recorded by any other investigator.<sup>358</sup>

*Yakut.*<sup>359</sup>—We have no very satisfactory information regarding the treatment of bears by these people, but they greatly respected the animal,<sup>360</sup> and in the apology made to it and in the disposal of its bones they resemble other Siberian tribes. Galitzin refers to the feast held after killing a bear. Care is taken not to break the bones, which are carefully put to one side. During the preparations a statuette representing *Boënai* is made of clay and this spirit as well as the god of the forest is propitiated. A portion of the soup is poured into the fire by each participant before eating. The spirit of the bear is apostrophized, being told that the Russians or Tungusians were responsible for its death.<sup>361</sup>

It is impossible to discern the precise focus of these propitiations but apparently we have here, as elsewhere, the association of the bear with powerful supernatural beings and it is necessary, therefore, to practice certain conventional observances. As bear ceremonies are not practiced by the people of Central Asia it does not seem improbable that the Yakut may have assimilated the attitudes and practices they evidence toward the bear from the northern aborigines of the region they now occupy, in the same way as they took over reindeer herding. But of this we cannot be certain.

#### *Western Siberia (Tobolsk District)*

*Ostyak and Vogul.*—Practically all of our information for western Siberia is derived from groups which live in the region of the Ob River and its tributaries. Travelers such as Ides, Pallas,<sup>362</sup>

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<sup>358</sup> Czaplicka, *op. cit.* Mr. H. U. Hall has been kind enough to search Miss Czaplicka's notes for further details, but without success.

<sup>359</sup> These Turkish speaking nomads are also intrusive in Siberia, probably since the conquests of Ghengis Kahn. They reached their present abode along the valley of the Lena River and a considerable assimilation of the aboriginal Siberians has taken place. See Jochelson (7), p. 258; Czaplicka (9), pp. 41, 52.

<sup>360</sup> Shklovsky, p. 22, says of the Yakut of the Kolyma that the brown bear is considered an incarnation of *Ulu-Tayon*, their most terrible god. Cf. Galitzin, who writes that they hold it in "superstitious fear"; Czaplicka (9), p. 48.

<sup>361</sup> Galitzin, *op. cit.*

<sup>362</sup> Pallas, III, p. 64. Also Trusler's translation, p. 317. The custom of hanging the skin on a tree where reverence is paid to it is a practice referred to by this traveler but not mentioned by other observers.

Georgi,<sup>363</sup> Castrén,<sup>364</sup> and Erman<sup>365</sup> all refer to bear veneration and its accompanying ceremonies among people whom they term Ostyak,<sup>366</sup> but none of them give much satisfactory detail. Ahlqvist,<sup>367</sup> who started his investigations about 1858, and Sommer, who was a resident in this region for many years, give fuller ethnological accounts of the people, but add little to our knowledge of bear ceremonies. Gondatti, on the other hand, not only exhibits a first-hand knowledge of the country and the people, but has given us an invaluable account of the bear cult of the Vogul and Ugrian Ostyak which far surpasses any of the other sources I have been able to discover which deal with this region.<sup>368</sup> I have, therefore, summarized the most important points brought

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<sup>363</sup> I, p. 200.

<sup>364</sup> Castrén (1), II, p. 59. "Noch heute zu Tage sollen sogar die Ostjaken am Irtysh die Sitte haben, jeden erlegten Bären mit einem Fest zu beehren, wobei Gesang, Tanz, Biertrinken und mehrere Ceremonien, die auch bei Finnen und Lappen gebräuchlich gewesen sind, vorkommen." This author also says, II, p. 295, that the Permians and Siryans had a bear cult in ancient times but he gives no details.

<sup>365</sup> Erman, II, p. 43, says that when they kill a bear (or a wolf) "its skin is stuffed with hay, and the people gather round their fallen enemy to celebrate the triumph with songs of mockery and insult. They spit upon it and kick it, and that ceremony performed, they set it upright on its hind legs in a corner of the Yurt, and then, for a considerable time, they bestow on it all the veneration due to a guardian god." The emphasis put upon a ribald treatment of the bear, by this author, prior to more respectful behavior toward it is not borne out by the descriptions of other writers who refer to Ostyak customs. Nor is it paralleled elsewhere so far as our data go. Stuffing the skin with hay, however, is a custom homologous with that of the Koryak and, curiously enough, we have a single reference among the Naskapi to the same general effect.

<sup>366</sup> It is impossible to locate with certainty the peoples referred to, for the name Ostyak has been loosely applied to many different groups. Czaplicka (2) divides them into three major branches: (1) Ugrian Ostyaks, (2) Samoyedic Ostyaks, (3) Yenisei Ostyaks. As far as we have been able to determine the matter, our data pertain only to the first branch.

<sup>367</sup> Ahlqvist (p. 297), in referring to the beliefs and practices of the Ostyak and Vogul, emphasizes the fact that the bear is the largest and most formidable animal in the territory of the Finno-Ugrian peoples. Although it seldom attacks human beings, the beast is a positive menace to their domestic animals, particularly cattle, and consequently is considered very dangerous. In former times, prior to the introduction of firearms, or earlier still when metals were unknown or but little used, he says, the bear must have appeared in a still more formidable light in relation to man.

<sup>368</sup> Published in 1888. Even at this date the customs were rapidly dying out. I am indebted to Miss Mollie Levitzky for a translation of this article from the Russian.

out in his description and have given comparative notes of the statements of other observers.<sup>369</sup> But let us turn for a moment to the oldest account of bear veneration among the Ostyak which is to be found in the description of the traveler Ides,<sup>370</sup> published in 1706. The section is worth quoting in full:

Once several Ostiacks came on board the ship in which I was, to sell us Fish, and one of my Servants had a Nuremberg-Bear in clock work, which when wound up drummed and turned his head backward and forward, continually moving his Eyes, till the Work was down. Our People set the Bear at play a little: and as soon as ever the Ostiacks saw it, all of them performed to it their customary Religious Worship, and danced excessively to the honour of the Bear, nodding their Heads, and whistling at a great rate. They represented our Bear for a right Saitan,<sup>371</sup> crying out, What are our Saitans which we make? If we had such a Saitan, we would hang him all over with Sables and Black Fox Skins.<sup>372</sup>

Although this description of the behavior of the natives no doubt has its amusing side, yet it exhibits quite characteristically their subjective attitude toward the bear, even though the stimulus itself was so highly artificial. Gondatti gives us considerable insight into the basis of their beliefs in his résumé of a portion of their mythology in which is recounted the origin of the species and its relation to mankind.<sup>373</sup> From this material we are able to make the following deductions.

The animal is certainly not a deity, but is conceived to be under the control of one of their "high gods," *Numi-torum*,<sup>374</sup>

<sup>369</sup> In regard to the Vogul, all that Ahlqvist says is that the dead body of the bear "mit Gesang, Musik und unter Abfeuerung von Schüssen zum Dorfe geschleppt, wo sein Tod sodann mit einem Schmaus und Trinkgelage gefeiert wird" (p. 173).

<sup>370</sup> p. 20.

<sup>371</sup> *Ibid.* "They call their gods Saitan" (p. 20).

<sup>372</sup> The natives inquired whether the mechanism was for sale but the pious explorer "ordered it out of their sight, to avoid administering any occasion to Idolatry" The reference to the animal skins which they said they would "hang over" the image is quite reminiscent, in view of the comparative material already presented, of the treatment meted out to the carcass or skin of a slain bear.

<sup>373</sup> See pp. 78-79.

<sup>374</sup> Abercromby, I, p. 154, quoting from the discussion of Vogul religion in Munkacsí (Über die heidn. Religion d. Vogulen. Ethnolog. Mitteilungen aus Ungarn, Bd. III, Budapest, 1894) writes that *Numi Tarim* is a sky god transformed into a great hunter, the bear being his daughter. He controls the game animals. Cf. Czaplícka (5), p. 289, where a concise discussion of the position of this deity in the native pantheon is given.



although the latter has considerable difficulty in guiding the behavior of his protégé. The fundamental concept seems to be the notion that the activities of the bear are closely associated with the administration of a kind of supernatural justice. No human being is ever killed by a bear unless he has committed some "sin" and the bears which are slain by men are, in turn, those which have disobeyed the injunctions of *Numi-torum*. Both men and bears, in relation to each other, thus become instruments of supernatural justice.<sup>375</sup> Furthermore, *Numi-torum* has also prescribed that bears should be esteemed both in life and in death and should any human being be disrespectful to one of these creatures he will be punished by meeting his death in combat with a bear. These ideas thus bring about a sort of duality in the feelings which the natives hold toward the beast. Anyone who feels guilty of any kind of wrongdoing trembles at the sight of a bear, but when the animal is hunted, there is a hidden hope that *Numi-torum* will send the hunter a bear who has "sinned." It is easy to understand, therefore, why it is considered a great honor to successfully kill a bear, but at the same time it is necessary that one apologize to the animal for the deed and perform the proper post mortem ceremonies in order that one's attitude of esteem for the creature may be fully demonstrated, else misfortune or probably death will result.

Let us now turn to an account of the rites themselves.<sup>376</sup> After

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<sup>375</sup> The "oath by the bear," which is highly characteristic of the peoples of northwestern Siberia, becomes intelligible in the light of this ideology. Gondatti writes that a person taking such an oath either gnaws a bear's paw or brandishes an axe three times in front of the skull of a bear (suspended from a tree). At the same time he requests the bear to treat him in a similar manner if he does not keep his oath. See also Ahlqvist, p. 298; Ides, p. 23; Trusler (Pallas), p. 308 (allegiance to a new Russian sovereign was formerly sworn on a bear skin). Castrén, I, p. 309; Kondratowitsch, p. 289. Cf. the analogous custom of the Vogul, Ahlqvist, p. 172. Lasch has collected some data on this subject (chap. 12) and includes the Votyak and Samoyed among the peoples who swear by the bear, in addition to those mentioned above. He refers to the fact that the Russian courts in some districts allowed a bear's skull or skin to be brought in when it was necessary for the natives who entertained this belief to take an oath.

<sup>376</sup> If a bear kills one of the hunters the ceremonies are not usually performed. It is then the duty of a brother of the deceased or a near relative to seek out the guilty bear and kill or wound it. If he succeeds, the body, hide, and bones of the beast are burned at the place where the hunter met his death (p. 77).

killing a bear, the hunters throw snow over each other, if it is winter, or in summer, dirt or moss. Before removing the hide they place four or five sticks vertically on the beast's belly to imitate the opening of a coat. The skin is then stripped off the body of the animal, but not from the head and fore paws.<sup>377</sup> Both flesh and hide are taken to camp where the women busy themselves in getting a place ready to lay out the latter. Sometimes it is placed upon a large piece of bark or, in some cases, on a plain wooden table if they have one large enough. If the beast is a female they put two pieces of wood under it; if a male, three.<sup>378</sup> The chin of the bear is placed between the paws and in front of the animal they put several images of deer made out of bread or birch bark.<sup>379</sup> On the eyes they place silver coins<sup>380</sup> and to the chin they fasten a "muzzle" made of birch bark.<sup>381</sup> If the bear is a female they put one or more rings onto its claws.<sup>382</sup> It is said that the coins and the "muzzle" are put on because the women are not allowed to look the bear in the eyes or to kiss its lips, a prerogative which belongs to the men exclusively. It is customary, also, for the women to cover their faces with handkerchiefs when they see the animal coming, and before the skin is brought into the house they usually place an axe on the threshold. The women then busy themselves in making preparations for the feast, to which relatives and friends from miles around are invited. It always takes place at night, which is not only traditional, but, from the native point of view, necessary in order to satisfy the "spirit" of the bear.

The festivities continue not less than three days if the animal killed is a cub, four days if it is a female, and five if it is a full

<sup>377</sup> Cf. Ahlqvist, p. 298, who refers to the same practice of leaving the skin of the head intact. He also says that the animal is always laid in a place of honor and called "the old one," out of respect.

<sup>378</sup> No details are given but there is suggestion here of the northeastern Siberian custom of giving the bear a "bed."

<sup>379</sup> This suggests the use of wooden images of the whale and bear in northeastern Siberia, e.g., among the Koryak.

<sup>380</sup> Cf. Ahlqvist, p. 298.

<sup>381</sup> This suggests the bandage put onto the bear's snout by the Gilyak. See Von Schrenck, p. 720. Unfortunately, we have no sketch of the Ostyak device.

<sup>382</sup> Cf. Ahlqvist, p. 298.

grown male. If the host has plenty of provisions on hand the feast may continue longer,<sup>353</sup> as, for example, in the autumn, but if a bear is killed in the spring when most of the winter's store of provisions has been exhausted then the celebration will only continue for the minimum traditional period. Neighbors, too, may come to the aid of the host if his provisions run out and sometimes the hide and head of the bear may be transferred to a neighbor's house, even if he has not taken part in the hunt, but is of sufficient means to carry on the festivities in the customary manner.<sup>354</sup>

When all preparations are made and night has fallen, the festivities begin. The hunter who has killed the bear always seats himself at the right of the animal and places his left hand on the bear's neck. At the left of the beast sit the musicians. An interesting custom which may be mentioned here is the practice of throwing water or snow at those who for the first time enter the house where the bear lies.<sup>355</sup> Each newcomer must also kiss the bear's snout. The women do this through a handkerchief without even looking at the bark muzzle fastened to the animal's chin. Most of the night seems to be taken up with singing<sup>356</sup> and dancing,<sup>357</sup>

<sup>353</sup> Two weeks in some cases.

<sup>354</sup> Gondatti (p. 74 *seq.*) says that a successful bear hunt may ruin a man for a year because of the outlay required. The news travels very rapidly that so-and-so has killed a bear and as the guests do not have to be especially invited to join in the festivities, one never knows just how many people will turn up. Sometimes people travel hundreds of *vershs* to the celebration. As many as a hundred natives will sometimes come together which, because of the small and scattered population of the country, makes a bear feast an event of the greatest social importance. Indeed, it is such an honor to kill one of these animals that no one hesitates to shoulder the necessary obligations which always follow. Even in Gondatti's time (in the eighties), however, the Russification of the natives was proceeding so rapidly that it was often difficult to find anyone in a particular settlement who was well enough equipped in "bear lore" to guide the natives in the details of the customary procedure. Consequently, the natives would at times send two or three hundred *vershs* for an old man who was acquainted with the proper songs and the details of the ceremonial procedure, for without these the festivities would be of no account.

<sup>355</sup> Gondatti says that this is a purification rite and has a religious significance. Mention has already been made of a similar practice by the hunters immediately after they have killed a bear.

<sup>356</sup> Cf. Georgi, I, p. 200. Castren (1), II, p. 59.

<sup>357</sup> Although no specific details are given there are several references by other observers to dancing as part of the ceremonies observed in connection with a slain

a few special features of which may be noted. Masks are used and in some of the dances men simulate female attire and behavior. The performers are not permitted to look straight into the eyes of the bear and the covering of the face by masks is said to be in accordance with the wishes of the animal. The personalities of the actors are completely obliterated while they are "in character"; they call each other by nicknames and members of the audience must not refer to them by their own names, either. A critical license in speech prevails to such an extent that even Russian officials who may be in attendance are ridiculed with perfect freedom and make no attempt to stop the sharp mockery that goes on.

The performance generally begins each night with a series of songs by two or three of the men who first bow to the bear. The number of songs sung depends upon whether a bear is a cub, a male or a female. In content, these songs refer to the bear, how it walked in the forest, how it found a mate and made a den. They also sing of the animals' life in a former mythological period and of how things were different before the Russians came, when game was plentiful, etc. An intermission follows the singing, during which refreshments are usually served by the host. This is followed by a period during which various dances are performed. In some of these the movements of the bear are imitated<sup>388</sup> and they have a magico-religious significance. At the end of each dance and in the earlier part of the evening, after each song, a deep bow is always made to the bear.

During the intervals between the dances by the men, the women and sometimes even the children dance. The former must always keep their faces covered with a handkerchief at this time

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bear. Czaplicka (2) says, "after a bear has been killed his body is placed on the ground and the people dance around it"; at the same time they blame the death of the animal on the Russians. Cf. Ahlqvist, p. 298. " . . . heute (circa 1858) bei den ugrischen Volkern das Fallen des Baren mit einem Mahl, Tanz und allerlei Spassen gefeiert" Castern (2) II, p. 59. Sommer, p. 166.

<sup>388</sup> Sommer says (p. 166), "I was told that when the Ostyaks have killed the bear they pass the night dancing special dances around the victim. In these dances they represent the episodes of the hunt, one of the men taking the part of the bear and mimicking its motions." See also p. 217 for a description of a mimetic bear dance.

and hide their hands in their sleeves so that the bear will not see any part of their bodies uncovered.

At some time during the feast the slayer of the bear will occasionally leave the house taking a bow and arrow with him. Without looking, he shoots an arrow at the house. Depending upon the position of the beam which the arrow strikes, the hunter in this way is able to determine what his future luck in bear hunting will be. If his arrow, for example, strikes the highest beam, it signifies that he will kill another bear within the year. On the other hand if he hits any of the lower beams it will be a longer period of time, depending on a somewhat variable scheme of interpretation.

Another form of divination, with the same object in view, is practiced on the last night of the feast. When the hide of the bear is being carried out of the house, where it has lain during the period of celebration, the slayer bends down and usually whispers in the animal's ear. He asks whether another bear will be killed soon and who, among those present, will be the slayer. Names are mentioned and the ease with which the skin can be lifted determines the bear's answer.

The hide is carried into the open at daybreak and at this time also, the men throw snow at one another and wrestle. The women do not go out with the men, but before the skin is carried forth they throw snow and water at each other. During the course of the festivities part of the bear's meat has been eaten, but the consumption of the portions which are the special prerogative of each sex does not take place until afterwards. The men prepare and eat their share (the head, heart, and paws) in the woods, while the women cook and eat the hindquarters of the bear in the dwelling where they have remained. It is customary after eating to wipe the hands and mouth with shavings<sup>389</sup> and to throw these into the fire. They are also very careful to burn up any remains of the meat, no matter how small, so that the dogs may not get hold of any part of the bear's flesh.

*Samoyed (Asiatic).*—I have not been able to discover any

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<sup>389</sup> Cf. Von Schrenck, p. 725, who refers to the same practice among the Oltscha.

reference to a ceremonial treatment of the bear's carcass among any of the Samoyedic peoples,<sup>390</sup> although it seems clear that the animal is held in reverential dread by them.<sup>391</sup> The absence of the central feature of bear ceremonialism, i.e., treatment of the carcass preparatory to eating it, is corroborated by the statement of Castrén that it is very seldom that bear meat is eaten at all. It is believed, for example, that if a hunter eats bear flesh a bear will, at sometime or other, retaliate by eating him. The risk is not so great in the case of a man who is not a hunter, but even so there is another important taboo to be observed: viz., that fish and bear meat must never be eaten at the same meal, since this mixture would cause all of the fish to disappear from the rivers.<sup>392</sup> Furthermore, women are never allowed to eat a bear's flesh<sup>393</sup> or at least the head of the animal.<sup>394</sup>

### *Finns*

In Rune 46 of the *Kalevala* we find a poetic description of the slaughter of a bear by Väinämöinen and the triumphal return of the hunter to the people of Kaleva with the carcass.<sup>395</sup> The bear

<sup>390</sup> See Czaplicka (7) for a succinct statement regarding the location of the different groups.

<sup>391</sup> Czaplicka, *ibid.*, says, "with the exception of the Ostyak Samoyed, the Samoyedic tribes are much more given to ancestor and hero worship than to animal worship." She goes on to say that it is only the Ostyak Samoyed of the Ket who personify their ancestral god in animal form (i.e., as a bear). We may note here that it is also this group which is nearest the Ostyak, among whom bear ceremonialism is so important.

The "oath by the bear" is a strong indication of the reverential attitude of the Samoyed, see Rae, p.146, and Castrén, (1), p.263. The latter says it is "aus alter heiliger Scheu vor dem Bären," that the meat is not eaten. (2), p. 189, note; Middendorf, iv, p. 1443, refers to their fear of the polar bear and Erman, II, p. 54-5, writes, "The polar bear as the strongest of God's creatures, and that which seems to come nearest to the human being, is as much venerated by them, as his black congener by the Ostyaks." This author says they kill and eat it, and "show their respect for it in various ways" after it is dead. As no details are given we are obliged to leave the question of ceremonial treatment in doubt.

<sup>392</sup> Castrén, (2), p. 189, note, speaking of the Samoyed of Tomsk.

<sup>393</sup> Jackson, (1) p. 404, 405. Bear meat was considered a delicacy, but was taboo to Women. . . . "She must not eat of that sacred beast, the bear. . . ."

<sup>394</sup> Erman, II, p. 55.

<sup>395</sup> Crawford's translation, II, p. 661 *seq.* The critical exegesis to which the *Kalevala* has been subjected since the time of Lonnrot makes it hazardous, if not im-

(Otso) was "joyfully and respectfully welcomed" and "the ceremonies befitting such an event were all observed with songs<sup>396</sup> which have remained national, expressing regard and affection for the terrible yet valuable creature. The skin having been removed, a sumptuous, animated funeral banquet was held in his honour, and Väinämöinen sang the origin and story of this lord of the forest."<sup>397</sup> From a comparative point of view there are quite a few items of special interest for us in the account as narrated in the epic.

It is said that the hunter comes home "singing o'er the hills and mountains, with his friend, the famous Light-foot, With the Honey-paw of Northland." Here we have the substitution phenomena, very naturally and significantly used by Lönnrot, and probably in its correct sociological setting. The people hear him and run out of their cabins inquiring what he has found. He replies,

The Illustrious is coming,  
Pride and beauty of the forest,

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possible, to assign the various aspects of Finnic culture which are reflected in it to any specific date. Yet it is clear that, in content, the oral literature out of which Lönnrot constructed it pictures, on the whole, a great many beliefs and practices which truly represent the pagan period. Hatt (pp. 126-7), while admitting the immense culture-historical value of the traditional songs upon which the *Kalevala* is based, refuses to accept Laufer's characterization [5], pp. 100-1) of it as "a true picture of the primeval cultural conditions in which the Finns lived prior to their Christianization." (A D. 1151). However, Comparetti (p. 64) says, "of a truth, there is not to be found in the *Kalevala*, in any rune of any kind, mention of anything which is not, directly or indirectly, known to all the Finns of whatever district." It matters little, therefore, from our standpoint, whether the material used by Lönnrot dated from very different times and places or not. The fact that he actually collected songs clearly indicating bear veneration and ceremonialism places his data on a level with other ethnographical information, even though we have to depend upon its poetic redaction. Furthermore, the fact that he saw fit to include a section on the bear in the epic argues for the psychological importance which he must have attributed to it as representing an important series of customs in the lives of the people.

<sup>396</sup> Georgi, I, p. 50, gives one of these which he says is sung at the death of the bear. It starts off, "Beasts of all forest beasts, revered, subdued and slain. . . ." The author comments upon the fact that "bears are held in great estimation among all the pagan nations of the North and Northeast," the people believing that this animal's soul like a human being's, is immortal. This is the explanation, so he believes, of "all that superstitious grimace observable in the hunting of this animal."

<sup>397</sup> The quotation is from Comparetti's epitome of the *Kalevala*, p. 111.

'Tis the Master comes among us,  
 Covered with his friendly fur-robe.  
 Welcome, Otso, welcome, Light-foot,  
 Welcome. Loved-one from the glenwood!  
 If the mountain guest is welcome,  
 Open wide the gates of entry;  
 If the bear is thought unworthy,  
 Bar the door against the stranger.

The people then bid the animal welcome, using substitutive terms and telling the animal how they have wished and waited for its coming. In the subsequent passage Väinämöinen asks where the bear shall be taken and the reply is

To the dining-hall lead Otso,  
 Greatest hero of the Northland,  
 Famous Light-foot . . . etc.

.....

The bear is also told not to fear the "curly-head virgins" and that

Maidens hasten to their chambers  
 When dear Otso joins their number  
 When the hero comes among them.

The foregoing is very reminiscent of taboos for women in connection with the bear, not only among the Lapps, but in Siberia and North America.

The skinning of the bear is next described in quite hyperbolic fashion, and among other things the animal is told how much his "fur robe" is admired and that it will not be made into garments "to protect unworthy people."

The meat is then cooked and placed on the tables in readiness for the feast, whereupon Väinämöinen relates the supernatural origin of Otso, and how he acquired claws and teeth. This is followed by a description of how Tapio, the god of the forest and the master of the game animals, led Väinämöinen to the animal's den but that spear or bow and arrow were unnecessary to kill the bear because the beast lost its balance in a tree, tumbled, and met its death in that way.

The hunter then proceeds:

Now I take the eyes of Otso,  
 Lest he lose the sense of seeing,  
 Lest their former powers shall weaken;  
 Though I take not all his members,  
 Not alone must these be taken.



References to the ears, nose, tongue, and brain are made after a similar verbal pattern. Then the teeth and claws are referred to:

I will reckon him a hero,  
That will count the teeth of Light-foot,  
That will loosen Otso's fingers  
From their settings firmly fastened.

Finding no others "with strength sufficient" the hero removes these himself. Reference is then made to taking the skull of the beast into the forest and hanging it on a high fir tree.<sup>398</sup>

In Feathermann there is to be found a very interesting description of a Finnic bear ceremony<sup>399</sup> which, although brief, contains many points of considerable comparative significance. "The *Koowonpääliset* was a funeral festival which was celebrated in honour of the bear, who was kind enough to permit himself to be killed by the lucky hunter. From the whole neighborhood all the people, dressed in their best attire, assembled at an appointed place . . . . The head of the bear, which was suspended from a tree, attracted the eyes of all the guests, and words of praise and triumphant exultation gave expression to the glory of the fortunate hunter who had slain the mighty beast of the forest, and he was distinguished by a copper key which was attached to his weapons as a mark of honour. The stewed bear's meat was then brought out, and standing at the threshold of the dwelling the master of the house said: 'Let the children leave the hall; prevent the young girls from crowding round the door, for the noble one comes to visit the *tapa*, the celebrated one is introduced into the house.' The feasting then commenced, and was continued till late in the night. At the close of the banquet the Runic bards expatiated, in measured verses, on the homage that had been ren-

<sup>398</sup> Cf. Comparetti, p. 111.

<sup>399</sup> The work in which this account appears (pp. 421-2) is a secondary compilation of customs from various parts of the world with bibliographies at the end of each section, but no specific documentation. Unfortunately, I have been unable to locate the source of the author's description but this is probably due to the fact that most of the works cited in his Finnic bibliography have been inaccessible to me. But even though undocumented, the account given is important because it evidently represents (I infer this from internal evidence) the persistence into fairly recent times of the customary bear ceremony and feast among the Finns of which we have only the barest outlines in the *Kalevala*.

dered to the bear, the favored victim of the feast, urging him to report to his brethren of the forest the high consideration with which he had been treated, and following his example, they may permit themselves to be dispatched for the benefit of some adventurous huntsman."

A clue to the interpretation of the bear rites of the Finns is to be found, I think, in a conception which is not without fairly close parallels in the philosophy of nature to which other peoples under review adhere. It seems evident that the Finnic hunter believed that his success depended upon the good will of a supernatural controller of the game animals.<sup>400</sup> In the case of the forest creatures this was *Tapio*,<sup>401</sup> with whom the bear was closely associated. In fact, it is said that the bear was nursed by *Tapio's* wife, *Hongatar*.<sup>402</sup> The detailed analysis of this problem belongs to the Finno-Ugrian specialist, but the mere statement of it suggests a motivation for the special attention paid to the bear.

### *Lapps*

All of the earliest writers on the customs of the Lapps devote considerable attention to ceremonies connected with the bear. The distinctive features brought out by them have been summarized in the following account.<sup>403</sup> As in the case of the Finns, the

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<sup>400</sup> Abercromby, I, p. 285 *seq.* The Votyak also entertain the same idea and call this being "forest uncle" or "forest man" and they make sacrifices to him. *Ibid.*, p. 161. The fact that they actually called the bear "forest uncle" makes the connection of the animal with this being clear enough. Cf. Buch, p. 139.

<sup>401</sup> In the glossary, *Kalevala*, II, p. 743, *Tapio* is defined as "the god of the forest." Cf. Abercromby, *op. cit.*

<sup>402</sup> Abercromby, I, p. 289.

<sup>403</sup> The work of Scheffer is of fundamental importance as it was published in 1673 and gives a detailed compilation of still earlier observations. Leems and Regnard seem to lean upon Scheffer's book to some extent but give additional and confirmatory data. Fjellström is, perhaps, the most competent observer who published information in the eighteenth century but I have not had direct access to his work. Reuterskiöld draws so heavily, however, upon this account and is altogether so specific and discriminating as to sources that I feel satisfied that the major observations of Fjellström are extant in this secondary work. I have, therefore, indicated my use of Fjellström's data by placing his name in parentheses after Reuterskiöld's when the former is quoted regarding any point. The same practice is followed with respect to other authorities utilized by Reuterskiöld and Scheffer.

The special line of interest pursued by Reuterskiöld is the development of the

bear is apparently under the special protection of a forest deity,<sup>404</sup> the woodland creatures being regarded as the latter's herds. Luck in hunting depended on his will and his favor was therefore very important.

When the carcass of a bear is dragged out of the animal's den it is customary for the hunters to beat it with birch sticks,<sup>405</sup> dancing around and singing<sup>406</sup> until they are almost exhausted. Another custom which follows the slaughter of the bear is described by Fjellström, but not referred to in the compilation of Scheffer.<sup>407</sup> A birch sapling twisted into a ring is placed around the lower jaw of the beast and to this is tied the belt of the hunter who killed it. He then tugs at the jaw three times, singing in a

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religious ideas and customs of the Lapps. As he believes the bear rites to belong to an early hunting stage of their history he finds these ceremonies to be a manifestation of the oldest phase of their religious evolution. At certain points, however, he links up customs connected with the bear with European practices and beliefs of wider provenience. Thus, for example, the whipping of the bear's carcass with birch twigs is associated, by the author, with the use of boughs in what are interpreted to represent, at a later period, magical rites for the growth of vegetation. I have not included any discussion of these points as they are entirely beyond the scope of this study, belonging more properly to the domain of the specialist in European ethnology.

I should like to acknowledge here my indebtedness to Professor A. J. Upvall, University of Pennsylvania, who was kind enough to translate for me the chapter in Reuterskiöld's work which especially deals with the Lappish bear customs.

<sup>404</sup> Abercromby, I, p. 161. Scheffer, p. 95. The former calls this deity "*locib-olmai*," the latter, *Storjunkare*.

<sup>405</sup> Scheffer (Samuel Rheen), p. 40. Cf. Reuterskiöld, p. 24. The latter says this custom has become proverbial.

<sup>406</sup> Scheffer, p. 240. See Reuterskiöld's discussion of the so-called Lappish "bear songs" (p. 24). This writer points out that they are not songs in the usual sense of the term, i. e., with fixed words. They are subject to improvisation and are characteristically intoned, belonging to what he terms "joiking." This explains the variations noted in their content by different observers. Fjellström also drew attention to this point as well as to the use of special words in these ditties. The explanation given by this author was to the effect that the bear was considered such a sacred creature that in order not to meet with its disfavor they dared not mention the animal by name, or use the ordinary terms for its limbs, or even the utensils employed in eating the beast; hence, the employment of special terms.

<sup>407</sup> It is, however, recorded for South Lapland (Ösele) by at least one observer writing before Fjellström. This was Petrus Thurenus (1724). See Reuterskiöld, p. 25. Local differences in procedure must, of course, have existed and this may perhaps explain why Scheffer does not refer to the custom. Fjellström says that in his time bear customs were not characteristic of the southernmost Lapps (Reuterskiöld, p. 19).

peculiar intonation that he is the conqueror. The ring is then taken off and the hunter, carrying it back to camp with him, announces his arrival by pounding three times on the door of his dwelling and crying out, if the bear is male, "sacred man," or if a female, "sacred virgin." Fjellstrom says this practice is not intended to announce the killing of the beast but to magically transfer the power and strength of the dead bear to the hunter's household. Sometimes a similar purpose is accomplished by each hunter taking a bit of the blood of the animal and smearing it on the entrance posts of his hut. In cases where the ring is used, the successful hunter presents it to his wife who wraps it up in a piece of cloth and keeps it until the end of the bear feast. At this time a part of a brass chain is tied to it as well as to the animal's tail. The men then bury the ring with the bones of the bear, but the chain is frequently removed before this is done and hung on a drum to make the latter "powerful."

After pulling at the ring above described, it was sometimes customary for the slayer of the bear to point his spear three times at the animal. This was for the purpose of obtaining more power for the weapon in future hunts.

Another custom observed after the killing of a bear, was for the hunters to push their ski across the carcass as a sign of their success in worsting it. If they failed to do this they feared that in the next hunt a bear would run across their ski and upset them.<sup>408</sup>

The animal is then covered over with spruce boughs and left in the woods until the following day, even if the carcass is within a short distance of their camp.<sup>409</sup> In the oldest accounts it is stated that the bear was eaten near the spot where killed,<sup>410</sup> but even by Fjellström's time (1755) it is said that a bear was rarely cooked and eaten in the woods, unless it was an unusually long distance from the camp. The animal was conveyed to a Lappish

<sup>408</sup> Reuterskiöld (Fjellstrom p. 29).

<sup>409</sup> *Ibid.*

<sup>410</sup> Scheffer, e.g., writes (p. 241) that "it is their custom to boil the Bear's Flesh immediately near the same Place where they have killed him, unless for want of wood, and other necessities, they are forced to carry him to some more convenient Place, where they erect a Hut, for that purpose. . . ." Cf. Reuterskiöld, p. 30.

settlement by placing the carcass on a sledge drawn by a reindeer.<sup>411</sup> They sing to the bear along the way, petitioning the beast not to raise "tempests or do any other harm to those who had been concerned in the slaughter,"<sup>412</sup> or, according to another writer, "they give thanks to God the Creator of wild Beasts for their Use; and for having endowed them with sufficient Force and Courage, to overcome so strong and fierce a creature."<sup>413</sup>

As they approach the camp the hunters sing another song in which a desire is expressed to have their wives chew elder bark and spit the juice in their faces. As they enter their respective dwellings (on this occasion it is compulsory for the man to come in through the small rear door which has a specialized connection with game and hunting),<sup>414</sup> the women proceed to carry out this unique rite.<sup>415</sup> After this the immediate preparations for the feast commence.

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<sup>411</sup> This animal, says Scheffer (Rheen), p. 241, is not supposed to be driven by a woman for a year and according to an anonymous author who is quoted, the men are also forbidden its use during the same period. Cf. Pinkerton (Regnard), 1, p. 194.

<sup>412</sup> Scheffer (p. 240) comments here: "This seems to be intended by way of derision, in the same manner as they thank the Bear for his coming thither . . . ; unless, we suppose they entertain a certain Superstition that the killing of these wild Beasts proves sometimes ominous to the Hunters, which indeed is the Opinion of some among them to this day."

The association of the bear with the weather is further elucidated in the following passage, p. 150. "When the Laplanders pretend to cause an alteration of the excessive cold they take a Bear's Skin, which they hang up all Night abroad. The first thing the Laplander does after he rises out of his Bed, is to whip the said Skin for a considerable time with Rods, by which means they pretend to moderate the excessive cold of the Season; tho' I am apt to believe that they also make use of certain words, which they mutter betwixt their teeth." Cf. Reuterskiöld's quotation from Lundius, p. 27.

<sup>413</sup> Scheffer (Rheen), p. 240.

<sup>414</sup> See Scheffer, p. 209, where a diagrammatic arrangement of a Lappish dwelling is to be found; also p. 206 ff. for a discussion of the common door and the smaller opening in the rear of the hut. Suffice it here to remark that the rear door was taboo to women and through it the products of hunting, fishing, and fowling were always brought in. Wexovius speaks of it as a "window," but all of the other early writers on the Lapps term it a "door." Cf. Rheen on this subject (*ibid.*, p. 246).

<sup>415</sup> See *ibid.*, p. 241-1. The author states that the women are accustomed to use elder-bark juice for the purpose of dyeing their utensils. He attempts what appears to be a rationalization of the custom by saying that "they spit it in their husbands' Faces, by reason of its resemblance to the Bear's blood, whom they would not seem

The Lapp men cook<sup>416</sup> the bear meat in a specially erected hut<sup>417</sup> to which the women are not admitted. Leems says that they did not enter it "until they had at first stripped off their cloaths, considering it as impious to enter it in the cloaths in which they had killed the bear. The males stayed three days here, but the women during that time inhabited the cot" (regular dwelling).<sup>418</sup> It was forbidden at this time to use the ordinary word for "cook," a circumlocutory term being proper instead.<sup>419</sup> After entering the hut the men sang "songs of joy and thanks to the animal that they have been allowed to return in safety."<sup>420</sup>

The animal is placed in a supine position and a bark funnel is sometimes placed in its mouth.<sup>421</sup> This funnel is filled with chewed alder bark and before the beast is skinned some of the masticated bark is squirted along the animal's body and some put into its rectum. The knives and utensils to be used in eating the

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to have killed, without great Danger and Trouble." Rheen says that only the wife of the leader of the hunt spits in her husband's face. Scheffer adds another curious detail, remarking that the women look through a Brass Ring, "as if they were aiming at some certain mark, as we do with our Guns," when they do this spitting.

<sup>416</sup> The oldest writers seem all agreed that among the Laps it was not only customary for the men to provide the game but also to cook it. Scheffer, *c.g.*, says (p. 256), "all their Victuals are dressed by the men and not by the women. It is the Men's Busines to provide, boil and dress their Victuals." Pinkerton (Regnard), 1, p. 188, states that the women only cooked when the men were absent; Linnaeus writes, "every kind of fish or meat is cooked by the men" (1. p. 318). See also pp. 132, 340; cf. Acerbi, II, p. 189.

<sup>417</sup> It is called *qwertek* (Reuterskiöld [Fjellström], p. 30) and the custom was still in force in this observer's time. Scheffer also refers to this hut (p. 241), as does Regnard (Pinkerton, 1, p. 194), who says, "They construct a hut for the express purpose of dressing the bear which is employed in no other manner." One may perhaps legitimately speculate whether the practice of erecting such a hut can be correlated with cooking and eating the bear in camp. The exclusion of the women suggests the need for it there, but if the meat were prepared near the place where the animal was killed in the woods, as the older accounts indicate, only males would be present anyway.

<sup>418</sup> Pinkerton, 1, p. 485. Sexual continence during the period of the bear feast was imposed upon all the men who had participated in the hunt, the leader having to obey this restriction for two days longer than the rest. Scheffer, pp. 242-3.

<sup>419</sup> Pinkerton (Leems), 1, p. 485. "*guordestan*" was substituted for "*Vuoshjan*."

<sup>420</sup> Pinkerton (Regnard), 1, p. 194.

<sup>421</sup> Reuterskiöld, p. 31 (Fjellström). This funnel is not mentioned by the earlier writers. According to Fjellström it is put under the bear's nose when the animal's bones are interred.

bear are adorned with brass rings and chains and placed on the carcass, some of them on the head. The slayer of the bear does the flaying. The hairless skin of the nose is cut off first and the hunter fastens this to his own face and ears and then proceeds with the skinning. The skin of the head is never removed. As soon as a large enough opening is made the blood is bailed out with cups. It is then mixed with a little fat, boiled and drunk by the men as a "toast" to the bear before any of the meat is touched.<sup>422</sup> It is customary for the meat to be cut up in such a way that none of the bones of the animal are broken.<sup>423</sup> The throat and the intestines are left connected with the head until the remainder of the flesh is boiled. When part of the meat is boiled, the liver is taken out, spitted and roasted at the fire.<sup>424</sup> While the flesh, fat, and blood are boiling<sup>425</sup> the hunters, says Scheffer, "sit round the Hearth, every one in his proper place." The first place on the right belongs to the man who located the bear's den or the leader of the hunting party, the next person to him being the "shaman" (or drum beater), and next to the latter sits the hunter who "first encountered" the animal. On the left side sits the man who cut the wood with which the fire was built, next to him the hunter who brought the water in which the flesh was to be boiled, and so on.<sup>426</sup>

Although both men and women alike ate the slaughtered bear's meat they did not sit down at a "common board"<sup>427</sup> and

<sup>422</sup> Reuterskiöld, p. 31. They imitate the gurgling and grunting sounds of the beast.

<sup>423</sup> This applies to other game as well. See *ibid.*, p. 32.

<sup>424</sup> Pinkerton (Leems), 1, p. 463, calls this a "host or kind of sacrifice" called "vuodno-baffem." Cf. Acerbi, II, p. 302, who terms it a "burnt-offering."

<sup>425</sup> Scheffer says (p. 243) that this is done in brass kettles and that the fat is skimmed off with "wooden vessels" on which are fastened "as many Brass Plates, as they have killed Bears." The latter is good corroborative evidence of the extreme pride with which bear killing is endowed. Fjellström says it was regarded as unlucky if the kettle boiled over and any liquid fell into the fire. If the stew boiled too hard it was thought to be a sign that the women were doing something improper and someone was dispatched to see what they were up to (p. 32). If everything was normal, a song would sometimes be sung to make the kettle simmer down.

<sup>426</sup> Fjellström says that the Lapps he knew did not do this (p. 32).

<sup>427</sup> Scheffer (p. 242) speaks of a preliminary feast in which men and women jointly participated, held in one of the regular dwellings (of the leader?) which follows

different portions of the animal were the prerogative of each sex.<sup>428</sup> It is the duty of the "shaman" to apportion the men their share, whereas the "leader" assigns the women their customary portion, two men being specially delegated to carry it to them. They sing as they go, the sense being, "Here come the men out of Sweden, Poland, England and France." The women answer with, "You men who are come from Sweden, Poland, England and France, we will tie red strings round your legs," which they proceed to do.<sup>429</sup> The men must pass the meat into the dwelling through some other opening than the regular doorway.<sup>430</sup> All of the meat must be eaten the same day and care taken that nothing is left.<sup>431</sup>

All of the bones of the bear are preserved intact and after the feast they are interred, care being taken to arrange them in their natural relationships.<sup>432</sup>

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the return of the hunters and precedes the retirement of the men to the hut where the bear is cooked. No bear meat is eaten at this repast.

<sup>428</sup> Scheffer (p. 243) says that the women were not allowed to eat any of the hind part of the bear, the forequarters being their special share. Cf. Leems (Pinkerton, 1, p. 485); Regnard (*ibid.*), p. 184; Reuterskiöld (Lundius), p. 33. Scheffer records that the same practice applies in the case of hares, birds, and wild reindeer (p. 243). Fjellström observed the reverse and Thurenius says the women's share consists of anything behind the shoulder blades (p. 33). The three or four extreme vertebrae in the hind quarters belong to oldest men. The heart is taboo to women, as is the case with other animals, too. The men eat it to acquire strength and courage. Forbus (Reuterskiöld, p. 34) says the women never touched the meat but ate it on a stick. Thurenius maintains that all those who did not participate in killing the bear were compelled to do this.

<sup>429</sup> Scheffer, p. 244.

<sup>430</sup> See section on treatment of the carcass, note. Leems (p. 485) in describing this custom, seems considerably more realistic in respect to the so-called "door" in the rear of the dwelling, which is simply referred to as such by the other observers already quoted. Speaking of the portion of the meat assigned to the women, he writes, "it should not be given them through the usual door, but put in *through a rent made in the covering of the cot*, in the place where the pots and kettles were put. . . ." (Italics mine.) Regnard (Pinkerton, 1, p. 194) writes that the meat is thrown in "at the hole through which the smoke issues, in order that it may appear to have been sent and descended from Heaven. They do the same, when they return from the chase of other animals."

<sup>431</sup> Reuterskiöld, p. 32. Fjellström says that salt was never used with bear meat. (p. 34). Cf. Saghalin Ainu and Gilyak.

<sup>432</sup> See Reuterskiöld, p. 34. Cf. Pinkerton (Leems), 1, p. 885. Scheffer writes (p. 244), "after the men and women have eaten all the Flesh, they gather up the Bones, but don't break them for the Marrow's sake, as they do with those of some other



A final ceremony referred to by several of the earlier writers is performed by the women. The skin of the bear is hung up and the women, blindfolded, shoot at it with bows and arrows. The husband of the woman who first hits the skin will be the next man to kill a bear.<sup>433</sup>

Upon returning to their own dwellings each man takes hold of the chain on which the kettle hangs and after dancing three times around the hearth runs out through the common door of the hut. The women sing a song and throw ashes on the men.<sup>434</sup>

### *Amur-Gulf of Tartary Region*

*The Gilyak Bear Festival.*—The Gilyak are to be distinguished from other Siberian tribes which celebrate periodic bear festivals in that the ceremony, while similar in some of its general objective features to the feasts found elsewhere, has a unique socio-psychological context; that is to say, it has become integrated with the kinship groupings of these people to a remarkable degree. It will only be necessary here to call attention to this aspect of it in summary form.

The tribe is organized in father sibs,<sup>435</sup> called *khal*,<sup>436</sup> whose members from the native viewpoint are said to characteristically share a common name,<sup>437</sup> common fathers-in-law and conversely

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beasts, but bury them whole. . . ." According to one author, S. Nils (Reuterskiöld p. 34) the vertebrae are threaded in natural order upon a sapling, with the skull on top. A log is rolled over the remains so that dogs and other animals cannot touch or carry them away.

<sup>433</sup> Scheffer, p. 244. The women sing "We will shoot him who is come from Sweden, Poland, England, and France." One author quoted by Scheffer says that the liver of the bear is hung up and shot at, with the same belief. The woman who hits the skin is sometimes required to work as many crosses of tin wire covered with sinews as there have been bears killed. The hunters wear these about their necks for three days. The reindeer which drew the sledge on which the bear was brought from the woods is also adorned with one of these crosses.

<sup>434</sup> Scheffer, *op. cit.*

<sup>435</sup> Sternberg, *The Gilyak* (MS) quoted by Goldenweiser (1), p. 235.

<sup>436</sup> Czaplicka (5), p. 43, literally "foot-sack" (used in traveling).

<sup>437</sup> *Ibid.*, p. 49. It is interesting to note that these clan-names "are generally the names of localities where the clans formerly lived. Here and there we find names of animals as the origin of clan names, but this occurs chiefly where there is a Tungus admixture."

sons-in-law;<sup>438</sup> a common fire;<sup>439</sup> common mountain, sea, sky, and earth "men";<sup>440</sup> a common "devil";<sup>441</sup> *thusind* (right to compensation for offences);<sup>442</sup> common "sin,"<sup>443</sup> and a common bear.<sup>444</sup> Of these, the supernatural protectors of the kinship groups, the "Gentilgötter,"<sup>445</sup> or mountain, sea, sky, and earth "men," require a few words of explanation in order to understand the rôle played by the bear in Gilyak thought and in the bear festival. If we stop for a moment to consider briefly the philosophy of nature to which they adhere, we shall find it gives us the necessary key.

To the Gilyak mind the natural features of the earth and heavens and members of the animal kingdom all have their spiritual "owners" or "masters"; their visible aspect is merely an appearance. Furthermore, being a hunting and fishing folk, they strive to maintain an especially close rapport between themselves and the "owners" of the forest, mountains, and sea, because these supernatural beings are believed to control the stock of game and fish on which their livelihood depends.<sup>446</sup> Another peculiarity of their beliefs is the notion that the souls of deceased Gilyak "who die by drowning, are killed by wild animals, or those who are beloved by the 'owners' of the mountain, sea, or earth" become associated with these "owners" after death.<sup>447</sup> This is what happens, for example, when a Gilyak is killed by a bear.<sup>448</sup>

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<sup>438</sup> *Ibid.*, pp. 43-4. This is due to marriage regulations connected with degrees of relationship and secondarily to the exogamous character of the sibs resulting therefrom. See Goldenweiser (1), pp. 235-6, who writes these terms *axmalk* and *ymgi* respectively, Czaplicka (5), p. 43, as *ahmalk* and *ymgi*.

<sup>439</sup> Czaplicka (5), pp. 44-5.

<sup>440</sup> *Ibid.*, p. 45.

<sup>441</sup> *Ibid.*, p. 46; "a common enemy in the person of a deceased clansman or a slain enemy."

<sup>442</sup> *Ibid.*, pp. 40-48.

<sup>443</sup> *Ibid.*, p. 49. Taboos common to sib mates.

<sup>444</sup> *Ibid.*, pp. 45-46.

<sup>445</sup> Sternberg (1), p. 257-259; Czaplicka [5], p. 272, "clan-gods."

<sup>446</sup> Sternberg (1), pp. 244-248, 252-3.

<sup>447</sup> *Ibid.*, pp. 257-8 (quotation from Czaplicka (5), p. 45).

<sup>448</sup> The statement of Lansdell (II p. 232, note), that to be killed by a bear is a happy death for a Gilyak, is readily understood when their concept of the "Gentilgötter" is called to mind. Von Schrenck's statement, III, p. 696, that the soul of a person killed by a bear "goes to the forest and becomes transformed into a bear" is

His soul becomes a "little owner" and a member of the transcendental sib of the "'owners' of bears."<sup>449</sup> These deceased Gilyak become the special supernatural protectors of their living sib mates and thus link up the supernatural realm with the mundane sphere in the closest bonds of fellowship.<sup>450</sup> Homage is rendered by the living Gilyak to the supernatural "owners,"<sup>451</sup> as well as to their deceased sib mates<sup>452</sup> who are associated with them, by means of sacrifices and festivals which are held in their honor. The bear festival is one of the most important of these.<sup>453</sup>

The Gilyak look upon the bear as an honored emissary from the supernatural realm of the "owners" referred to.<sup>454</sup> After it is killed in one of their periodic ceremonies they believe that its soul returns again to the supernatural world.<sup>455</sup> It is a messenger, "der Überbringer aller möglichen Gaben an 'den Herrn des Berges,' von dem das Wohlergehen des Giljaken abhängt."<sup>456</sup>

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also entirely comprehensible in terms of Gilyak philosophy. Cf. Sternberg, p. 258. Light is also thrown upon the motivation of the special mortuary treatment of persons killed by bears (see Czaplicka [5], p. 153). Instead of the usual cremation, the body is "placed in a shed called *chyr-ngykh*, near the place of the accident and food is brought thither several times."

<sup>449</sup> *Ibid.*, p. 458.

<sup>450</sup> As Sternberg points out (p. 257), these "Gentilgötter" are not supernatural mythical beings "wie bei den Griechen und Römern, sondern seine eigenen Gentilgenossen, welche infolge verschiedener Ursachen in die Gens dieses oder jenes Gottes. . . 'Herrn' Eintritt fanden." Again (p. 258) "Es sind keine mythischen Götter. . . sondern reale Persönlichkeiten, die in der Vorstellung ihrer Verehrer machtvoll leben." Their life is conceived to parallel that of the Gilyak themselves.

<sup>451</sup> *Ibid.*, p. 254.

<sup>452</sup> *Ibid.*, pp. 257, 259. That the Gilyak usually have in mind their "sib-gods" in many of their offerings, rather than the "owners" themselves is indicated by the following remarks of Sternberg, pp. 458-9. "In Wirklichkeit erhält also jede Gens ihre Beute nicht unmittelbar vom 'Herrn des Berges,' sondern gerade von ihrem Gentilgott, welcher sich speziell im Jagdgebiete seiner Gens ansiedelt. Daher werden auch die durch den Bären übersandten Geschenke eigentlich nicht direkt an den allerhöchsten 'Herrn,' sondern an den nächsten 'Herrn des Berges'—den Gentilgenossen dirigiert."

<sup>453</sup> *Ibid.*, p. 459.

<sup>454</sup> They say, e.g., that "Der Bär ist der Hund des Herrn des Berges." P. 456, also p. 253.

<sup>455</sup> *Ibid.*, pp. 456-7.

<sup>456</sup> *Ibid.*, p. 458. Even Hawes though a casual observer, boils down the religious motive of the festival to "the sending of a messenger to the great lord of the mountains,

The slaughter of the animal is thus not in any sense a sacrifice but only the occasion for making offerings to the "owners."<sup>457</sup> In return, the latter, or more accurately, perhaps, the transcendental protectors (*Gentilgötter*) of each sib, secure for their mundane kinsmen a ready supply of game.<sup>458</sup>

Sternberg believes that since the "owners" and the "*Gentilgötter*" associated with them appear to man only in an animal form, we have here a kind of incipient "totemism." But, because there are so few sibs in which one or more members have not been killed in combat with a bear or drowned in the sea or river, he maintains that any exclusive association of an animal as the supernatural protector of any particular sib could not come about. This made it impossible for full-fledged totemism to develop.<sup>459</sup>

From the Gilyak standpoint we can now appreciate why it is that the bear, of all animals, is looked upon with such special veneration<sup>460</sup> and we can understand more clearly the significance of the bear festival. In fact, we may say that the attitudes and practices associated with this powerful creature focus for us the most typical aspects of Gilyak socio-religious life. From the religious angle, for instance, it is necessary "to venerate the slain bear, for he may belong to the fraternity of the 'owners of the

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*Pal ni vookh*" (p. 201). "The 'owner' spirit of the mountain, and the mountain itself, is named Pal . . ." writes Czaplicka (5), p. 271, quoting Sternberg's "The Gilyak" (in Russian).

<sup>457</sup> *Ibid.*, p. 457. In the bear festival the offerings are dogs, fish, tobacco, arrows, etc.

<sup>458</sup> *Ibid.*, p. 254. The principle of reciprocity is important in their ideology. "Das Prinzip des Opfers bildet—der Tausch, und deshalb darf dem Gott des Meeres kein Fisch, dem Gott des Urwalds kein Fleisch von Tieren dargebracht werden."

<sup>459</sup> *Ibid.*, pp. 258-9 Cf. Goldenweiser's comments in relation to the question of totemic origins, p. 259.

<sup>460</sup> Sternberg (1), p. 250; Von Schrenck, III, p. 696; Seeland, p. 797, says "he is a sacred animal but not a deity."

Hawes, p. 168, e.g., says "the *ch'uff*, as they call the bear on Saghalin plays the greatest rôle in the animal world. He is regarded with peculiar sentiments. . . ."

Other less critical observers, impressed with the Gilyak attitude toward the bear have wrongly categorized their beliefs and customs as "worship," e.g., Niemojowski, I, p. 49. "In addition to the white and black gods, they worship several animals, and more especially the bear, seeing in it the embodiment of power, strength and fearlessness; cf. Tronson, p. 135; Notes on the River Amur, etc., p. 396; Lansdell, II, p. 233.

mountain,' or be the incarnation of some remote fellow clansman's spirit, which had been received into that fraternity. Again, the bear is regarded as the intermediary between mortals and the 'owner of the mountain,' so that sacrifices may be sent by the bear to that spirit, an important matter, for this 'owner' has power over all animals. This is the reason why the bear festival plays such an important part in the life of the clan, and why, although clansmen from other groups may be present at the festival, the organization and management of the feast are in the hands of the clansmen, only sons-in-law, besides, being allowed to assist in this way."<sup>461</sup> "Socially, the bear festival is equally important. It affords an opportunity for widely separated members of the clan to meet and share various social pleasures, the more so as the ceremonies are usually followed by games and sports of different kinds. Besides, it gives scope for the formation of friendships with other clans."<sup>462</sup>

We may now turn to the bear festival itself which is a periodic affair held in the winter.<sup>463</sup> The animals killed upon this occasion are those which usually have been caught in the forest<sup>464</sup> as cubs and brought back to the village, where they are confined in cages

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<sup>461</sup> Czaplicka (5), p. 46.

<sup>462</sup> *Ibid.*, p. 46. Sternberg (1), p. 260, says that the bear feast plays a similar rôle in the social economy of the Gilyak to that of the Olympic games among the Greeks.

<sup>463</sup> Sternberg (1), p. 260, gives the native name for it as *Tschchylf-l'échchernd*. At least one of these celebrations, he says, takes place every year in one Gilyak village or another, usually in memory of a deceased sib-mate (Gentilgenossen). Von Schrenck writes (p. 699) that the festival is generally held in December but sometimes in January or February. It cannot fall later than April first, as preparations are by this time under way for the annual migration to summer quarters. The owner of the bear (or bears) to be used in the feast, who also must act as host, decides upon the specific date, although a shaman may sometimes be consulted. Lansdell, II, p. 232 (note), gives January as the usual time of the festival as does Deniker (Seeland), p. 307. Sternberg says (p. 262) February. Cf. Labbé, p. 261, for the Gilyak of Saghalin and Hawes, p. 196.

<sup>464</sup> Sternberg (1), p. 260; Von Schrenck, p. 697; Deniker (Seeland), p. 307; Lansdell, II, p. 231. Von Schrenck and Seeland refer to the practice (no doubt modern) of purchasing bears to be used in the ceremonies from the Saghalin natives. But, caught or purchased, the arrival of a new live bear in the village is itself an occasion for rejoicing, music, etc. See the accounts *op. cit.* for details as to how the cubs are obtained and their reception.

for two or three years.<sup>465</sup> The animal is treated as an honored guest during the period of its captivity. It is well fed, its cage is cleaned regularly, and periodically it is taken for a stroll and a bath, an event, indeed, which is immensely enjoyed by the whole village, young and old alike gathering around the animal on its peregrinations.<sup>466</sup>

In preparation for the bear festival great quantities of food and drink must be made ready for the many guests who will assemble, as the occasion would not be complete without these material stimulants to jollification. Although the owner of the bear, as the customary director of the festival, must shoulder a great deal of the expense connected with it, his sib mates cooperate with such remarkable zeal that actually the burden is fairly well distributed over this kin group as a whole.<sup>467</sup> A further

<sup>465</sup> Sternberg (1), p. 260; Deniker (Seeland), p. 308. The practice of keeping bears in captivity is evidently a very old custom. See Von Schrenck's remarks (p. 698). A misinterpretation of it, as early as the seventeenth century, gave rise to the tale that the Gilyak kept tame bears and used them for various types of domestic service. Even the most casual sojourners in this region have reported the bear cages, e.g., Lansdell, II, p. 231; Tronson, p. 135; Notes on the Amur, p. 396. The time of confinement, of course, depends upon the age of the bear; some may be kept only a few months, if nearly full grown, whereas cubs are kept until maturity. (Von Schrenck, p. 699). The Gilyak of Saghalin also encage bears (Labbé, p. 261; Hawes, pp. 162, 195, illus. opposite 196).

<sup>466</sup> Sternberg (1), pp. 260-1. Hawes, p. 196 (Saghalin Gilyak). Von Schrenck (p. 698) describes the process of removing the bear from its cage in some detail. The animal is held in leash, of course, by means of a special kind of "harness."

The feeding of the bear devolves, according to Sternberg, not upon the owner alone but upon the sib mates of this individual, each family taking its turn on "bear service." Von Schrenck, on the other hand, speaks of the bear as belonging to the whole village community (*Dorfgenossenschaft*) the members of which are jointly responsible for the animal's care. Valuable as are the observations of the latter observer, Sternberg's detailed investigation of the social organization of these people has undoubtedly demonstrated the correctness of his view. The *communal spirit* of the bear festival and its preliminaries, however, was clearly sensed by Von Schrenck. Even among the sibless Ainu it is an affair in which a group of individuals feel a common responsibility. The duties of the host in both cases function within this group. Von Schrenck figures the long spoon (*nichyr*) used in feeding the bear (plate 21, no. 2). He never heard of Gilyak women suckling bear cubs (p. 736), nor is this practice reported by later authorities.

<sup>467</sup> Sternberg (pp. 261-2). This observer comments: "Here is exhibited the admirable (*bewunderungswürdige*) sib organization of the Gilyak which, in its har-

preliminary activity, of quite another kind, is the preparation of the arena where the bear is to meet its death.<sup>468</sup>

Finally, on the evening before the festival proper<sup>469</sup> begins, "*inao*" are manufactured. They are of different sizes and vary somewhat in form. Each kind is manufactured in pairs and represents a male and female. They are tied both on the tips of the poles of the arena and below.<sup>470</sup> In function they seem to partake both of the nature of "mediators," between the Gilyak and the "owners" of the forest, etc. and talismans.<sup>471</sup>

The actual beginning of the festival itself is best characterized by the removal of the bear from its cage for the last time and the custom of leading it about from house to house. As Von Schrenck says,<sup>472</sup> this seems to furnish the chief amusement of the affair prior to the slaughter of the beast. These perambulations are apparently for the purpose of indicating to the animal the honor and esteem in which it is held in every dwelling<sup>473</sup> where

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monious combination of social solidarity and individual freedom, is so astonishing." Cf. Von Schrenck, p. 697, who emphasizes a trifle more strongly the necessary opulence of the host.

<sup>468</sup> In the middle of a well stamped down place in the snow there is erected a pair of posts (if more than one animal is to be killed there is a pair for each) between which the bear will be tied. A long, narrow alley of trees is next constructed (out of fir and willow) leading up to this place. Each pair of trees in this alley is considered to be male and female. Sternberg (1), p. 262. Cf. Von Schrenck, p. 706; Hawes, p. 198.

<sup>469</sup> This day is termed *nau-wachn-ku*, i.e., the day of the preparation of *inao*. Sternberg, *op. cit.*, p. 262. Von Schrenck, p. 704, says that women and girls are not permitted to shave them.

<sup>470</sup> Von Schrenck refers to their use in other ways. See, e.g., plate XI (description p. 700), where they are suspended above the roof of the house where the festival was held from a string attached to two poles made of fir trees erected at each end of the dwelling. A stick stuck up in the snow near the house door also carried one.

<sup>471</sup> Sternberg (1), p. 262. As the significance and use of these religious objects has an application far wider than the bear festival we have not considered it necessary to go into further detail. Sternberg (2), while discussing their functions among the Ainu, frequently refers to Gilyak analogies. See also his remarks (1), p. 246. In his opinion the *inao* cult has been borrowed from the Ainu. See Czaplicka (5), p. 271, note 4.

<sup>472</sup> p. 702.

<sup>473</sup> *Ibid.*, p. 703; Lansdell, II, p. 232, (note); cf. also Deniker (Seeland), pp. 307, 308. This custom is not emphasized in Sternberg's general account, but in the village in which Von Schrenck witnessed the ceremonies it occupied the major part of several days. It seemed, he says, that they could not get enough of it. At this ceremony there

specially prepared victuals await it. As the bear is led about it is teased from every side in a seeming attempt to make the animal lose its temper.<sup>474</sup> It is considered a notable feat for the host to cautiously slip up to the bear, seize its head and kiss it farewell and then jump quickly aside. A stroke from the beast's paw under such circumstances, even though it may rip open one's shoulder or head, is considered to be a mark of special favor. The bear is usually led down to the river at some point in one of the promenades and around the hole in the ice from which water is secured.<sup>475</sup> This is to ensure an abundance of fish for each family.<sup>476</sup>

Before the bear is killed it is led around the host's house three times and finally into it. Previously, however, everyone—men, women, children, (and dogs)—must leave the dwelling and when the bear appears only the oldest men of the sib stand at the entrance. As the bear is led into the house it is teased with a long pole to the end of which are attached fir branches.<sup>477</sup> At the same time soft words are spoken to the creature. The bear is then led to an especially prepared place and tied between two stakes which are decorated with *inao*. The pole with which the beast is teased is fastened to the middle of the hearth in such a way that the tip of it passes up the smoke hole and protrudes above the house top. The bear is now left to itself as the people crowd back into the house and begin to lose themselves in unrestrained frivolity.<sup>478</sup>

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were three bears to be killed and as they were led about and in and out of the houses, their growls seemed as delightful to the Gilyak as music to our ears. They were handled with remarkable dexterity and every move the animals made was noted and discussed. The author remarks that the usually taciturn Gilyak became so vivacious as to be almost unrecognizable (p. 705). For Von Schrenck's detailed description, see pp. 702-8

<sup>474</sup> Sternberg (1), p. 264.

<sup>475</sup> Von Schrenck (p. 708) refers to leading the animal around the village and down on the river in the moonlight. See pl. XLVIII; Lansdell, II, p. 232 (note), says they try to make the bear drink out of a hole in the ice.

<sup>476</sup> Deniker (Seeland), p. 308.

<sup>477</sup> Cf. Hawes' account of the Saghalin Gilyak, p. 197.

<sup>478</sup> Sternberg (1), pp. 264-5. For a description of the more or less extraneous social activities which accompany a bear festival Von Schrenck is the best source. See. pl. XI, and pp. 701, 706-7-8, 719, for his description of games, dog racing, etc. One can gain some comprehension of the manner in which these fit into the proceeding as a whole if it is remembered that the ritualistic customs connected with the bear itself are only the prerogative of a few individuals. These do not, after all, occupy a



In the meantime, the *Narch-en*<sup>479</sup> are engaged in the serious business of preparing the bow and arrow which is to send the animal upon its long journey. When all is ready the bear is fed for the last time by the host, or the oldest man of the sib celebrating the festival. The animal is requested to present "a good place" at which to be shot and is bidden *adieu* as follows: "Farewell, I feed you for the last time; go directly to your 'owner.' May you be able to gain your master's affection." The animal is then led to the arena, accompanied by all of the males present at the feast, the women being forbidden to attend this event.<sup>480</sup> The headman of the sib, or the owner of the bear, walks first, carrying a little kettle and axe in his hands; the oldest of the *Narch-en*, also with kettle and axe,<sup>481</sup> follows after, and then come the remainder of the *Narch-en* and the other guests. After a preliminary trial shooting at a target with bows and arrows,<sup>482</sup> a deep silence falls on the crowd as the *Narch-en* selected as the executioner takes his weapon in hand. He waits until the bear turns itself in such a way that an

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great space of time and the interludes are socially enjoyed by those upon whom none of the serious responsibility falls. Some of these games are undoubtedly played in honor of the bear as well as for amusement. See Von Schrenck's remarks, p. 701. It may also be noted that this characteristic combination of seriousness and frivolity distinguishes Gilyak bear ceremonialism from that of any of the other peoples which venerate the animal. This is the point which Labbé (p. 261) had in mind, perhaps, when he wrote that the periodic ceremony of the Saghalin Gilyak had much less religious significance than that of the Ainu and that the former people treated the animal with much more familiarity.

<sup>479</sup> This term refers to the especially honored guests of the festival. They are the representatives of the sibs into which the daughters of the host (the owner of the bear) and other women of this sib have married. Frequently, the rôle of *Narch-en* thus falls upon a son-in-law of the host. One of these *Narch-en* is chosen by the others to kill the bear and as a group they receive the largest portion of the flesh. Members of as many as ten sibs may take part in one of these festivals. Sternberg (1), p. 263.

<sup>480</sup> Or else the bear might not present a "good place." *Ibid.*, p. 265.

<sup>481</sup> *Ibid.*, p. 266. These are called *nitsch*, which means "yours and mine" (*meins-deins*). These *nitsch* are exchanged after the festival by the host and the oldest *Narch-en* as a sign of eternal fellowship.

<sup>482</sup> Sternberg (p. 266) thinks that what is now a more or less perfunctory formality represents a survival of an ancient shooting match, characteristic of the period when the bow was an important weapon among the Gilyak. In Saghalin (Hawes, p. 198) blunt arrows were shot at the bear preliminary to despatching it. This parallels the Ainu custom.

arrow can be sent directly into the heart.<sup>483</sup> Several men usually rush upon the animal immediately after it is hit, in order to throttle the bear and thereby hasten its death.<sup>484</sup>

In Hawes' account of a Gilyak bear festival on Saghalin he says that sometimes a shaman took part in the ceremonies, although this custom seemed to be on the decline. Just before the animal was shot this individual "with a pine-twigg in his hand amid the deep silence of the spectators, goes close to the bear and whispers in its ear:

You have eaten many berries,  
 You have caught many fish,  
 You have frightened many people;  
 Your ancestors and your comrades have 'broken' many Gilyaks:  
 Therefore you must die for it.  
 But your 'host' has fed you three whole years,  
 Not stinting the delicious *yukola* (dried fish),  
 He has given you the best water,  
 He has taken you for walks,  
 He has bathed you thrice a day in the 'summer year,'  
 And three 'winter years' you have lived in a nice warm lodging,  
 He, your host, will not kill you:  
 Therefore you must not complain about him to the Great  
 Lord of the mountains.'<sup>485</sup>

As no other observer mentions the participation of a shaman in a Gilyak festival, this variant feature of the Saghalin group, if correct, is of considerable interest. The content of the speech reported is certainly consistent with Gilyak notions, but at the same time its general pattern savors very strongly of Ainu speeches. My guess would be that we have here, perhaps, an indication of

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<sup>483</sup> Sometimes the animal is disinclined to move and then some one will irritate it. The opinion is held that if the bear can be made angry at this time it will lighten the pain of its wound. Sternberg, p. 266. Cf. Hawes' description of the shooting of the bear on Saghalin, p. 200.

<sup>484</sup> The shot generally proves fatal, however. *Ibid.* This custom is also said to be done in order to prevent the bear from crying out in its death agony. Deniker (Seeland), p. 307 says that they sometimes finish the animal with a spear. Von Schrenck notes, p. 711, that the blood which is lost is immediately covered with snow. It may be remarked here that the Tahltan, after killing a bear "gather the remains and the blood that is not required and cover if it possible." MS. notes, J. Teit.

<sup>485</sup> Hawes, p. 199.

Ainu influence upon the Gilyak ceremony, although the participation of a shaman is no more typical of the Ainu than of the Gilyak.

Returning to the Gilyak of the mainland, the bear's corpse is now stretched out on the snow, the head resting on the forepaws, with the face of the beast toward the west.<sup>486</sup> The people now seat themselves and eat up the cold victuals which were carried by the bear.<sup>487</sup> After this the sib mates skin the bear and cut up the flesh according to customary rules and with great solemnity.<sup>488</sup>

The head is left attached to the skin and is now carried back to the house of the host. It is not taken in at the regular doorway, however, but through the smoke hole.<sup>489</sup> The head man of the sib catches it and, striking it lightly with a stick, says, "Remember this. that some particular old man and some particular old woman

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<sup>486</sup> See sketch, Von Schrenck, p. 712.

<sup>487</sup> See Sternberg (1), p. 263. A girdle, which is part of the beast's "harness," is provided with little pockets which are filled with eatables of various kinds when the bear is taken out of its cage. These are provisions for the post-mortem journey. The Saghalin Ainu also provide the bear with a provision belt (Labbé, p. 238) and a similar practice is to be found among the Koryak. Sternberg (1), p. 267.

<sup>488</sup> Von Schrenck says (p. 712) that the animal is laid on its back and the skin slit *from the neck downwards*, a practice which corresponds with that of certain tribes of northeastern America.

<sup>489</sup> Sternberg (1), p. 268; Von Schrenck, p. 715, quoting the observations of Ditmar and Brevern, supplemented by what he had heard from the Gilyak, but had not witnessed himself, describes this custom as follows: One of the old men takes the bear's skin with the head attached, together with certain other objects (*inao* and fir branches) and circles the house three times. Stopping before the window, the panel (made of fish skin) is taken out and the skin, head and other things introduced. After the window pane is replaced the figure of a toad made of birch bark is attached to the outside of it, (see sketch, p. 716) while inside the figure of a bear carved of wood and dressed in Gilyak costume (pl. LVIII, fig. 3) is set up in the place of honor. Von Schrenck's interpretation is that the toad is a scapegoat upon which the guilt of slaying the bear is laid. Hence it must remain outside in contradistinction to the bear which is brought inside and treated with great respect. Sternberg regards this custom as contributing evidence to the hypothesis that the Gilyak were anciently a more northerly people (see Klementz, p. 221) at which period the smoke hole was the regular entrance to their dwelling. In my opinion, however, the custom must be correlated with similar practices among the other peoples in Asia, Europe and North America where there is a taboo upon bringing the bear or other game animals into the dwelling through the ordinary entrance. Even among the Gilyak the bear is not the only animal treated in this way. According to Seeland (Archiv für Anth., p. 796), a slain boar is introduced through the "window."

nourished you."<sup>490</sup> The women meanwhile beat upon a log of wood which serves as a drum. The old man lays the head and skin upon a frame work especially erected for the purpose.<sup>491</sup> Under the head is placed a quiver of arrows and near it tobacco and eatables. The carcass is kept outdoors under a frame shelter and when any portion of the meat is brought into the dwelling it is always introduced through the smoke hole<sup>492</sup> or window.

According to Sternberg the next part of the festival is called "the day of the feeding of the head" (of the bear). Various kinds of victuals are prepared and part of every dish is put in a special vessel and placed before the head of the beast.<sup>493</sup> At the same time the cooking of the bear's own meat is started.<sup>494</sup> No one partakes of the bear's flesh, however, until the next day, which is called "the day of the reception (Bewirtung) of the *Narch-en*."<sup>495</sup>

Before the bear can be eaten, however, a neat cajolery is carried out. The women prepare a bandage which is placed between the eyes and the tip of the snout of the beast. In the center of it is the representation of a toad, similar to the one pasted

<sup>490</sup> Sternberg (1), p. 268. "Gedenke dessen, dasz dich der und der alte Mann, die und die alte Frau genährt hat."

<sup>491</sup> Sternberg, p. 268, calls this "Ehrennarte." Von Schrenck illustrates the scene in realistic fashion. See pl. XLVIX.

<sup>492</sup> Sternberg, *ibid*.

<sup>493</sup> Many elaborately carved utensils are used only upon the occasion of a bear festival. See Von Schrenck's remarks, p. 717 and pl. I, LII. New ones are sometimes carved during the festival.

<sup>494</sup> Although Von Schrenck does not mention the fact, Sternberg (1), p. 269, says that the fire is made with a "sacred" flint and steel which is sib property and passes from generation to generation, being kept in custody by the head man. This observer writes that the bear meat is cooked in a special vessel outdoors. In Von Schrenck's account, on the other hand, it is done inside the house, (p. 716), and is the prerogative of the old men, who remain there alone with the dogs. Women, girls, and even young men have no part in it. They prepare some of the side dishes, however, but out of sight of the animal, p. 718. "The work goes on," he says, "slowly, thoughtfully, and in a certain way festively." Melted snow must be used instead of water. Prior to cooking, every part of the animal must be placed before it in order to secure it's permission. After cooking, the various parts of the bear are also placed in the animal's special dish so that the beast can enjoy them first. Salt is forbidden as an ingredient in any of the food prepared during the festival (cf. the Saghalin Ainu, Labbé, p. 256 and Lapps op. cit.), because the beast will be frightened by the sputtering.

<sup>495</sup> *Narch-aryn-ku* (Sternberg [1], p. 269).

outside of the window. The purpose of this is to deceive the bear into the belief that it is this evil being who has caused his death and to indicate to the animal at the same time that it is the Gilyak who have treated him as an honored guest and, in their sympathy for his fate have undertaken to dry his tears. This deception exonerates them from all blame and their repast upon the bear's flesh can now be enjoyed to the full.<sup>496</sup>

Sternberg writes that only the *Narch-en* are permitted to eat the bear's flesh<sup>497</sup> while the host and members of his sib must content themselves with a thick rice soup with broth made from the animal's meat. These honored guests arranged themselves upon the sleeping benches in the dwelling and the greatest delight of the host is to encourage them to eat and drink to excess.<sup>498</sup>

The last day of the feast is termed "the day of the departure of the *Narch-en*." The host piles up their sledges with eatables, including some of the bear meat which had not been consumed, and, reciprocally, the *Narch-en* make gifts to the bear. At the

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<sup>496</sup> Von Schrenck, pp. 719-20. Sketch, p. 720. Sternberg does not refer to this custom. The former authority also refers to, and illustrates the use of, one or more agate pebbles (of Chinese origin) which are attached to the forehead. He thinks this is an attempt to place the bear in the category of a deity by an imitation of the *urna* of a Buddha, an idea which the author believes them to have borrowed from the Chinese.

<sup>497</sup> (1), p. 269. Cf. Von Schrenck, p. 721. However, according to the latter's description, who does not distinguish the *Narch-en* as a group, the women and children get portions of the meat indirectly from the dishes of the guests, to whom it has been directly served. The head of the bear belongs to the celebrating sib. Hawes says the heart is divided among the "most honored" individuals (p. 200). It assures them of a good hunting season.

<sup>498</sup> Sternberg, pp. 269-70. A most astonishing custom is referred to in this connection. "Ja, die Liebenswürdigkeit des Wirts wird so weit getrieben, dass er, wenn der Gast sich an der fetten Suppe übergessen hat und sie von sich zu geben beginnt, ehrerbietig seinen Mund drunter hält und das Vomierte schluckt."

Von Schrenck (p. 722) refers to two customs observed as the guests depart from the feast which are of some little comparative interest. An old man with a fir branch stood at the door and lightly hit every person going out who had eaten any bear meat. Upon stepping outside the guests were snowballed by the boys while the women drummed (cf. Ostyak).

last moment, for example, they will often lead several of their dogs up to where the bear's skin lies and tie them there.<sup>499</sup> Finally, there is the custom called "treading upon the threshold"<sup>500</sup> to be performed, and then they depart. On the same day the dogs presented by the *Narch-en*, as well as others, are sacrificed in the same arena where the bear met its death. They are admonished in the following words: "Go to your master. Go! climb up the highest mountain. Change your skin and come down again next year as a bear so that I see you. Do that, come down again, go now nicely!"<sup>501</sup>

The dogs are laid out on the snow just as the bear was and later their flesh is eaten.<sup>502</sup>

*The Gold, Oltscha, and Orochi Bear Festivals.*—The bear festivals of the Gold,<sup>503</sup> Oltscha,<sup>504</sup> and Orochi<sup>505</sup> seem to parallel the Gilyak ceremonies in their principal features, although we do not have any published accounts<sup>506</sup> which are comparable in their details with those available for the study of the Gilyak celebration. According to Von Schrenck, who was fortunate enough to witness an Oltscha ceremony, the affair is carried out in a much less spontaneous spirit. His impression was that the observances were conducted very formally, even pedantically, and he therefore

<sup>499</sup> Sternberg (1), p. 270.

<sup>500</sup> *lymysyn-sytschywund*. It is the exchange of the *nisch* already referred to.

<sup>501</sup> *Ibid.*, p. 270-1. The head of the bear with all of the presents made to it is taken along. The dogs have *inao* bound to their heads. They are killed by strangulation. Hawes notes the dog sacrifice (p. 201).

<sup>502</sup> This repast is limited to the members of the sib which held the festival, both sexes participating.

<sup>503</sup> See Ravenstein, p. 379 *seq.*; Atkinson, p. 482 *seq.*

<sup>504</sup> Von Schrenck, pp. 723-8; Frazer (p. 197, note) says that "the Oltscha are probably the same as the Orochi," but Dr. W. Jochelson tells me that they are not to be identified. The Oltscha may be a subdivision (a sib) of the Orochi. I have therefore thought it best to keep them separate for the purpose of this study. Von Schrenck's map gives the approximate location of these peoples.

<sup>505</sup> Fraser, pp. 36-9. It is interesting to note that on the Tundja River "women take part on the bear feasts, while among the Orochi of the River Vi, the women will never even touch the bear flesh."

<sup>506</sup> Sternberg's forthcoming work on the "Tribes of the Amur River," in the Jesup series, will, no doubt, serve to fill in this gap.

concluded that it was not well integrated in their culture and was probably borrowed by them from the Gilyak.<sup>507</sup>

*The Ainu Bear Festival.*<sup>508</sup>—Let us now turn to another people of eastern Asia, who, like the Amur tribes, perform an elaborate, ritualized, public slaughter of bears at periodic intervals. This is the climax of the so-called "bear festival" of the Ainu which has so often led to the characterization of these people as "bear worshippers."<sup>509</sup> Without a somewhat deeper analysis of this concept, however, in terms of their philosophy of nature, a misconception of the rôle of the bear in their beliefs and practices is likely to arise. That is to say, individual bears or the species at large are not worshipped *per se*.

The phenomena of nature present themselves to the Ainu mind, like the Gilyak, only as "appearances"; in reality, they possess individuality, rationality, volitional qualities, etc., which in many cases are conceived to surpass those with which man is endowed. For such creatures, objects, or beings the Ainu use the term "*kamui*"<sup>510</sup> and it may also be applied to human beings who, for one reason or another, are distinguished by superior qualities. Thus, as Sternberg, in his able exposition of Ainu religious thought points out, beast and "*kamui*" are practically synonymous terms. To this extent the Ainu pantheon is zoological. But, on the other hand, all "*kamui*" are not objects of worship and it is not to the beasts themselves that offerings and prayers are made, but to their "masters" or "owners." These are also called *kamui*, but with the appellation of this or that sphere of nature added as, e.g.,

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<sup>507</sup> Von Schrenck, p. 728.

<sup>508</sup> I have chiefly relied upon the observations of Scheube, Von Siebold, Batchelor Greely, and Labbé. The works of Khauzin and Pilsudski on which Miss Czaplicka based her account (5) have not been accessible to me but there seem to be no striking divergencies in the various descriptions.

<sup>509</sup> Von Siebold, p. 26; Wood, p. 36; Bird, II, p. 97. Scheube is much more cautious and precise, p. 45.

<sup>510</sup> See references cited in my section on the linguistic terminology for the bear for a further discussion of this term. The rendering of it as "god" has caused a great deal of misunderstanding.

*nuburi-kamui* "master of the mountain." This particular "owner" is of special interest to us as he is the "master" of the bears. "On the one hand he is a man, on the other, a real bear, only of unusually large size. All other bears are his fellow tribesmen."<sup>511</sup> The Ainu, of course, come into direct contact only with the latter, but because of the association of these beasts with one of the most important "masters", a being which is conceived to control an important part of their food supply, bears must be treated with the greatest respect. The slaughter of a bear represents the departure of the "soul" of the animal to its "master" and a subsequent return to earth is expected, thus completing a cycle of the profoundest importance to the Ainu mind.<sup>512</sup>

Although the bear festival is no longer held in many Ainu communities, it was formerly characteristic of the natives of Yezo and Saghalin but was completely unknown to the Ainu of the Kuriles. In Torii's opinion it was not customary, either, among the ancient Ainu of Japan, and he therefore concludes that the ceremonies were transmitted by diffusion from the Gilyak to the natives of Yezo and Saghalin and not vice versa.<sup>513</sup> We shall return to this question of borrowing at a subsequent point in our study, but let us now proceed to a summary description of the Ainu festival itself.

When bears are hunted and killed, cubs are often captured,<sup>514</sup> taken to the Ainu villages and confined in cages, where they are fed and fattened for the annual festivals which occur in the autumn, usually in September or October.<sup>515</sup> Very frequently,

<sup>511</sup> Sternberg (2), pp. 425-6.

<sup>512</sup> Cf. Batchelor, e.g., pp. 479, 481, 482.

<sup>513</sup> Torii, p. 256. Laufer, in a review of Torii's work (A.A., vol. 21, p. 307) advances the view that the Ainu were a northern people who were migrating southward and met the Japanese coming northward from their earlier home on the southeast coast of Asia. See, also, Laufer (2). Von Siebold (p. 13) at an earlier date also maintained a similar hypothesis.

<sup>514</sup> St. John, p. 252; Czaplicka (5), p. 296.

<sup>515</sup> Scheube, p. 45; Dixon, p. 43. Batchelor (1) refers to a confinement of two to three years. Cf. Labbé, p. 227 (Saghalin Ainu). St. John (p. 252) saw four or five bears in cages in some villages. For photographs of Ainu bear cages, see Batchelor, pl. xxiii; Hitchcock, pl. cxiii and a Japanese drawing pl. cxiv. Labbé has a photograph of a Saghalin Ainu bear cage with a woman putting food in it (p. 236).



before being imprisoned these cubs, when very young, are suckled by the wife of the hunter.<sup>516</sup> Batchelor at first was doubtful regarding the rumors he had heard regarding this practice but later was able to observe the custom at first hand.<sup>517</sup> He also says that "sometimes very young cubs may be seen living in the huts with the people, where they play with the children and are cared for with great affection."<sup>518</sup> "But as soon as they are grown big and strong enough to cause a little pain when they hug a person, or when their claws are too powerful to be pleasant, they are placed in a cage strongly made of pieces of timber. Here they generally remain until they arrive at the age of two or three years, at which time they are killed for the feast."<sup>519</sup>

Although the descriptions of Ainu bear festivals differ in minor details of procedure and custom, yet all observers are in substantial agreement regarding certain characteristic features which we shall here attempt to summarize.<sup>520</sup> The festival is called "iomante."<sup>521</sup> In every case it is evident that the affair is communal in nature. Not only friends and relatives in the village, but sometimes individuals from other settlements as well.<sup>522</sup> are invited by the owner of the bear, who is also the host. The honor

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<sup>516</sup> Von Siebold, p. 26; Scheube, p. 45; St. John, p. 252; Bird, II, p. 99; Dixon, p. 43; Czaplicka (5), p. 296. Frazer, p. 187, quotes a Japanese writer of 1652 to the same effect. (He claims that this is the first published account of an Ainu bear festival.) Von Schrenck, III, p. 735, refers to the same observation. See MacRitchie's discussion of this point, pp. 8-18. Also pl. II, fig. 9.

<sup>517</sup> p. 484. On one occasion while he was preaching at one end of a hut "a group of women were sitting in a circle at the other passing a young cub around to be nursed a little by each woman in turn." In his previous book, "The Ainu of Japan" (1892), he had stated (p. 173) that after a five year residence he had never seen it done. All references cited as Batchelor refer to Batchelor (1).

<sup>518</sup> p. 483.

<sup>519</sup> p. 484. Also Scheube, p. 45. Labbé says, p. 235, that although a bear being reared for the purpose of a festival usually belongs to the most well-to-do man of a village, *everyone* shares in the honor of feeding the animal. In summer the bear is taken to bathe in a neighboring stream. On these occasions, also, the matter is considered of interest to all of the villagers. They follow the animal and talk to it in a friendly manner. See illustration, p. 237.

<sup>520</sup> For the Saghalin Ainu, Labbé's account has been utilized.

<sup>521</sup> Scheube, p. 45, Batchelor, p. 481. Torii, p. 254. It means "to send away."

<sup>522</sup> Batchelor, p. 485; Scheube, p. 45; Czaplicka (5), p. 297, "usually, practically the whole village is invited"

of giving the feast is so great that the host feels amply repaid in the prestige he derives, although it is necessary that he provide everyone with food and plenty of *saké*.<sup>523</sup> Batchelor gives a characteristic form of invitation to the festival as follows: "I, so and so, am about to sacrifice the dear little divine thing who resides among the mountains. My friends and masters, come ye to the feast; we will then unite in the great pleasure of sending the god away. Come."<sup>524</sup>

The preliminary ceremonies of the festival among the Yezo Ainu are held in the hut of the host. Libations are made to the "owner" of the fire, to the house "owner,"<sup>525</sup> and, according to Batchelor, to other "deities" who are all invited to partake of the feast.<sup>526</sup> *Inao* are placed in certain parts of the house, on the *nusa*<sup>527</sup> and on the four corners of the bear cage.<sup>528</sup> The men wear bark "crowns."<sup>529</sup> The next step in the procedure centers attention upon the bear. In Scheube's account the animal is offered food and *saké* which is followed by a dance of the women and girls around the cage, accompanied by singing.<sup>530</sup> Some of them address the beast tearfully in terms of endearment and the woman who

<sup>523</sup> Rice wine. Cf. Labbé, p. 235. The prestige which accrues to the host is paralleled among the Gilyak and also among the more distant Ostyak.

<sup>524</sup> p. 486.

<sup>525</sup> Batchelor, p. 486, Scheube, p. 47; Czaplicka (5), p. 297. The "owners" or "masters" of the hut and fire are important secondary *kamui*, according to Sternberg (2), p. 427.

<sup>526</sup> p. 486.

<sup>527</sup> See Batchelor, p. 486.

<sup>528</sup> Scheube, p. 46; Batchelor, p. 486. See Chapters ix and x in the latter's work for a general account of *inao* and *nusa*. Also, consult Sternberg (2), *op. cit.*

<sup>529</sup> See Batchelor, pp. 158-63, for a general discussion and illustration of these head ornaments. The author erroneously interprets them as an indication of "totemism" because they are decorated with animal representations, particularly of the bear, or parts of the animal, e.g., its claws. They are worn on all important festive or ceremonial occasions. Cf. Greey, p. 134 and sketch on p. 100; also Scheube, pp. 46, 224, and pl. iv, fig. 5.

<sup>530</sup> Cf. Greey, pp. 133-5, who says the first part of the festival, occupying a day, is called "*hinzinzo*" (feeding the bear). See illustration, p. 136, Scheube, p. 47; Hitchcock, pl. cxiv, shows the women engaged in a dance. Czaplicka (5), p. 297, says the foster mother of the bear and other women who have reared bears perform a special dance of their own at this point in the festival. Scheube describes the dancing in considerable detail.

had nursed the animal as a cub exhibits what appears to be genuine grief at all of the proceedings.<sup>531</sup> Batchelor simply mentions the fact that at this point the men solemnly approach the cage and are followed by the women and children who "sing, dance and clap their hands."<sup>532</sup> The part played by the women seems to be of considerable importance, for among the Saghalin Ainu it is the special duty of the older women during the day prior to the feast<sup>533</sup> to take turns lamenting before the cage of the bear.

Before the bear is taken out of its cage and slaughtered, a ceremonial address<sup>534</sup> is usually made to it which, from a comparative point of view, is of great interest.<sup>535</sup> The animal is informed that it is going to be sent to its ancestors, by the Ainu making the speech, who also "prays pardon for what they are about to do, hopes it will not be angry, tells it what an honour is about to be conferred upon it, and comforts it with the consolation that a large number of *inao* and plenty of wine, cakes, and other good cheer will be sent along with it . . . and that if it be a good and proper bear it will appear again to be treated in like manner."

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<sup>531</sup> Various authors mention the expressions of grief manifested by this individual at various points in the proceedings, especially when the beast is killed. See, e.g., Von Siebold, p. 26; Greey, p. 138; Labbé, p. 244; Scheube, p. 47. Mrs. Bird, II, p. 101, records that "In some villages it is customary for the foster mother of the bear to utter piercing wails while he is delivered to his murderers, and after he is slain to beat each one of them with a branch of a tree."

<sup>532</sup> Batchelor, p. 486.

<sup>533</sup> Labbé, pp. 239, 241.

<sup>534</sup> Says Czaplicka (5), p. 297, "Before the ceremonies, apologies are made to the spirits for the capture and detention of the bear, assurances are given that the treatment of the bear has been marked with the greatest tenderness, and it is explained that, as they cannot feed the animal any longer, they are obliged to kill it."

<sup>535</sup> Whereas, among the Ainu, this address evidently forms an integral part of the bear festival itself, although not mentioned by Scheube, it is linked elsewhere with addresses of propitiation, apology, and explanation offered to the animal by the fact that, although no details are given. Mrs. Bird says (II p. 101), "When a bear is trapped or wounded by an arrow, the hunters go through an apologetic or propitiatory ceremony." This suggests that aside from the highly conventionalized ceremonial feast Ainu hunters in the woods may also address the bears they kill in a similar fashion. But, observers have been so much impressed with the bear festival and so few, if any, of them have evidently traveled with the the Ainu hunter in the bush, that descriptions of what goes on at the annual public ceremonies has entirely eclipsed the less picturesque customs which probably occur whenever a hunter kills a bear.

Although not containing all the points just mentioned, Batchelor essays to give one of these addresses verbatim:

O thou divine one, thou wast sent into the world for us to hunt. O thou precious little divinity, we worship thee; pray hear our prayer. We have nourished thee and brought thee up with a deal of pains and trouble, all because we love thee so. Now, as thou hast grown big, we are about to send thee to thy father and mother. When thou comest to them please speak well for us, and tell them how kind we have been; please come to us again and we will sacrifice thee.<sup>536</sup>

Among the Saghalin Ainu the bear festival takes place in winter and at night.<sup>537</sup> Before the beast is taken out of its cage an address<sup>538</sup> similar in purport to that made by the people of Yezo is made. The bear is reminded how well it has been cared for and the orator then proceeds to tell the animal of the great festival which is about to be held in its honor. "Be not afraid," he says, "We will not hurt you. We will only kill you and send you to the god of the forest who loves you. We are about to offer you a good dinner, the best you have ever eaten among us, and we will all weep for you together. The Ainu who will kill you is the best shot among us. There he is, he weeps and asks your forgiveness; you will feel almost nothing, it will be done so quickly. We cannot feed you always, as you will understand. We have done enough for you; it is now your turn to sacrifice yourself for us. You will ask God to send us, for the winter, plenty of otters and sables, and for the summer, seals and fish in abundance. Do not forget our messages, we love you much, and our children will never forget you." The animal is then given the meal promised, during which there is much ceremonial lamentation on the part of both men and women. He is then taken out of the cage and led around it three times and also around the house of his owner and the orator. After being tied to a tree the orator again addresses the animal in a speech which sometimes lasts until dawn. "Remember," he says, "Remember! I remind you of your whole life and of

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<sup>536</sup> p. 487.

<sup>537</sup> In this respect it parallels the Gilyak ceremonies.

<sup>538</sup> Quoted from Labbé, pp. 241-3, 152 (translation by Frazer, pp. 188-9). The speech is not stereotyped. Labbé says that, although the words and phraseology differ with different speakers, the content is always similar.

the services we have rendered you. It is now for you to do your duty. Do not forget what I have asked you. You will tell the gods to give us riches, that our hunters may return from the forest laden with rich furs and animals good to eat; that our fishers may find troops of seals on the shore and in the sea, and that their nets may crack under the weight of the fish. We have no hope but in you. The evil spirits laugh at us, and too often they are unfavorable and malignant to us, but they will bow before you. We have given you food and joy and health, now we kill you in order that you may in return send riches to us and to our children."<sup>539</sup>

Returning to the Yezo ceremonies, we shall not pause to refer to any of the details connected with getting the bear out of the cage and securing it with ropes so that the animal may be led about.<sup>540</sup> But, once outside there ensues a period in the festival when everyone present tries to tease the animal into a rage.<sup>541</sup> This may be done to tire the bear. The villagers form a ring around the beast and shout and clap their hands.<sup>542</sup> They shoot blunt arrows at the bear<sup>543</sup> and poke it with sticks; "the wilder the bear becomes the more delighted do the people get."<sup>544</sup> Finally the beast is tied to a stake<sup>545</sup> and then "a round piece of wood about

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<sup>539</sup> Labbé says that in some villages there is no speech made before the animal is taken out of its cage, all of this elocutionary display being made just prior to slaughtering the bear. Dog sacrifice also accompanies the feast among the Saghalin Ainu (see Labbé, p. 240, 251) which is a feature not characteristic of the Yezo natives but parallels the Gilyak procedure.

<sup>540</sup> See Batchelor, pp. 487-8; Scheube, p. 48, MacRitchie, pl. x, fig. 8; Labbé, p. 244 *seq.* and photograph p. 233.

<sup>541</sup> Batchelor, p. 488; Landor, p. 281; Bird, II, p. 101; Greey, p. 137. In the account given by the last observer the teasing of the bear occupied most of the second day of the festival after which the bear was put back into its cage again. This savors of the Gilyak festival as the Ainu usually seemed to proceed more directly to the slaughter of the beast.

<sup>542</sup> Batchelor, p. 488.

<sup>543</sup> *Ibid.*, Scheube, p. 48; Landor, p. 281. See also Hitchcock, pl. cxv and the illustration in Greey, p. 138 and the text, p. 137.

<sup>544</sup> Batchelor, p. 488. It may be noted here that in Labbé's account (p. 248) the bear, before being killed, is led three times around the cage in which it has been confined and also the same number of times around the house of its owner, and that of the old man who gave the speech. This is another feature which suggests Gilyak influence.

two feet long" is thrust into the animal's jaws. "Next two men come forward, one on each side of the bear and seize its fore-legs and pull them out as far as they can. Then two others will in a like manner catch hold of the two hind-legs. When all this has been done quite satisfactorily, the two long poles . . . which are called *ok numba ni* i.e., 'poles for strangling' are brought forward. One is placed under its throat, and the other upon the nape of its neck."<sup>546</sup> The beast is then choked to death.<sup>547</sup>

The bear having been killed, its corpse,<sup>548</sup> or its skin with the head still attached,<sup>549</sup> becomes the object of further ceremonies. It is placed upon a mat either before the *nusa*<sup>550</sup> or in the hut,<sup>551</sup> is decorated with *inao* and various other objects<sup>552</sup> and food and

<sup>545</sup> Batchelor, *op. cit.* This stake is ornamented with *inao* and leaves of *arundinaria*. It is called *Tushop-ni* "tree having the rope." Cf. Landor, p. 281. In Labbé's description a tree serves the same purpose which is also decorated with *inao*.

<sup>546</sup> Batchelor, p. 489; Scheube, p. 48; Von Siebold, p. 26; Landor, p. 281; Greey, p. 137 and illustration p. 139; Hitchcock, pl. cxvi; MacRitchie, pl. x, fig. 9. Cf. Czaplicka (5), p. 297. Bird, II, p. 100, writes that they shout in chorus as the animal dies: "We kill you, O Bear! Come back soon into an Ainu." This method is mentioned in the earliest account of the bear festival (1652) quoted, Frazer, p. 188. It is interesting to note that the same method was formerly used to kill slaves on the northwest coast of America. See Simpson, vol. 1, p. 243.

<sup>547</sup> Although the choking method is mentioned by so many writers it may be noted that in Batchelor's account the animal is first dispatched with an arrow (p. 489) and then choked. Everyone desires to have a hand in the latter process; in fact, the "people become so very excited at the time the cub is throttled that they sometimes trample upon one another in their eagerness to have a hand in the death." No blood must fall on the ground and it is very unlucky for the dying animal to utter a single groan (p. 490). Cf. the Gilyak procedure. In Saghalin (Labbé, p. 251) the animal is killed with bow and arrow. The executioner then throws down his weapon and falls down by the bear and weeps, as does the old woman who has been principally charged with seeing that the bear has been properly fed.

<sup>548</sup> Scheube, p. 489. The bear is not skinned until the following day when its head and hide are decorated and laid before the *nusa* just as its body had been, p. 51. A similar practice is found in Saghalin, Labbé, p. 252 *seq.*

<sup>549</sup> Batchelor, p. 491. Possibly the head alone is sufficient in some villages as Howard (p. 124) states that immediately after the bear was killed its head was cut off and *inao* stuck in it. See, e.g., the splendid color plate reproduced by MacRitchie (pl. vii) taken from a *kakemono* in the Leiden Museum and painted by Shunri Chishima i.e., the painter of the Ainu.

<sup>550</sup> Scheube, pp. 48, 51; Greey, p. 414.

<sup>551</sup> Batchelor, p. 491, the mat is called *inao-so*.

<sup>552</sup> *Ibid.*, p. 491, earrings, beads, old sword hilts, a Japanese mirror. Scheube, p. 48, refers to the fact that in the ceremony he observed while the women were dancing

drink are put before it.<sup>553</sup> Chronologically, some such ceremony is usually performed prior to the cooking and eating of the animal's flesh.<sup>554</sup> As Batchelor gives the most details regarding the actual procedure I shall mainly follow his account, as it throws more direct light upon the psychological significance of the ritual to the Ainu mind.<sup>555</sup>

Food and drink having been laid before the animal's head and skin, one of the Ainu addresses the bear thus: "O cub, we give you these *inao*, cakes, and dried fish; take them to your parents, and say 'I have been brought up for a long time by an Ainu father and mother, and have been kept from all trouble and harm. As I am

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before the bear's cage "swords and sacred quivers known as *ikayup* or *ikor-kamui*, were suspended on the hedge (*nusa*). There were also bows and arrows, the latter always three in number, with which the bear was to be shot, and ear-rings and necklaces, to be laid on the bear after death." See pl. ix. The ear-rings and necklaces are considered proper for a female bear. Howard (p. 126), while referring to the fact that two quarters of the animal and its head lay undisturbed for two days before the greater *Inao* (*nusa*) "as if in consecration or as an offering," does not give any ritual details. He concludes by noting that on the third day the "head alone retained its place, the rest was being cut up into pieces with a show of unusual interest." Cf. Greey, p. 143, and frontispiece.

<sup>553</sup> Batchelor, p. 491. First "a piece of its own flesh is cut off and placed under the snout (*notpok-omap* "that under the jaw"), then there is put before it a piece of dried fish (*Sat-chep-shike* "the bundle of dried fish"), a moustache lifter put up in a parcel, millet dumplings, a cup of its own meat boiled ("the cup containing the meat is called *marapto itangi*—the cup of the feast."), saké. Scheube, p. 48. Millet mush; millet cake with fish oil poured over it; saké in a can with a drinking cup; chop sticks; moustache lifter provided with spiral shavings (this type is of a special ceremonial kind, see Batchelor, p. 136 and sketch, p. 137). Cf. Greey, p. 143-4. MacRitchie, pl. x, fig. 10, and p. 29. For the Saghalin Ainu we have the same custom recorded. As soon as the animal has been shot, in fact, a little food (rice and potatoes) is set before the dead beast (Labbé, p. 252). From this description there is a greater simplicity in this feature of the ceremony than among the Yezo Ainu.

<sup>554</sup> It should be mentioned in this connection that the ceremonial treatment accorded the bear's corpse prior to eating it may be repeated in front of its head and skin at a later period in the festival. Cf. Scheube, p. 51, and Labbé, p. 256. According to the description of Greey, however, the feast was held on the night of the third day of the festival immediately after killing the beast (p. 141) and the ceremonies before the head and skin followed on the succeeding day (p. 143).

<sup>555</sup> Scheube shows the Ainu seated before the corpse in pl. viii. Each man had his drinking cup set before him and they made libations to the animal. It is stated that the head man is supposed to make the first libation using the cup, etc., set before the bear, but in this case he waived this right in favor of the oldest man present.

grown big I am come to thee. I have also brought these *inao*, cakes, and dried fish. Please rejoice! If you say this to them they will be glad."<sup>556</sup>

Another address which parallels the above is given by Batchelor, except that it contains an explicit statement regarding the very typical belief which they hold: viz., that the bear is expected to return to earth again.<sup>557</sup> "Do thou again come to this world," they say, "that I, who reared thee, may meet with thee again, and once more bring thee for sacrifice."<sup>558</sup> After this, "millet dumplings<sup>559</sup> are threaded on sticks, and placed beside the head. These are said to be for the feast in the new world, for it would never do to appear before one's ancestors without a small present sufficient to provide viands for a meal."<sup>560</sup> A dance outside the hut follows, after which more *inao* are made and placed on the bear's head. A portion of the animal's own meat, which has meanwhile been boiled, is now placed before it in the cup previously mentioned and bruin is now said to be partaking of the "cup of the feast."<sup>561</sup> After the "little divinity" has finished eating,

<sup>556</sup> Batchelor, p. 491. Cf. Gilyak speech.

<sup>557</sup> Cf. Batchelor, p. 487, in address prior to killing; Bird, II, p. 100. Greey, p. 144, records this as follows: "My god, today I, the chief, send you forth as a god. If you come again—as a little bear—next year, I will take care of you. Now you kindly leave." Cf. Gilyak.

<sup>558</sup> Batchelor, p. 492.

<sup>559</sup> Cf. Scheube, p. 50. After the libations "the young man who had led the bear from the cage mounted to the roof of a house in order to throw millet cake from a basket among the people." (Translation Hitchcock p. 480). Although from an objective standpoint this custom seems to be of a different character than that referred to by Batchelor, it is possible that there may be subjective associations which, if the details were known, would connect them. In Greey's account millet *seed* is thrown among the crowd immediately after killing the bear (p. 138). It is said to make the Ainu strong when hunting.

<sup>560</sup> Batchelor, p. 492. See sketch of dumplings. The Saghalin Ainu also take special pains to provide the bear with provisions for its prospective spiritual journey. (Labbé, p. 238.) The women make a sort of belt which is put onto the beast prior to the hour of sacrifice. From it hang little sacks in which are placed various kinds of food. This custom is identical in purpose with that of other Paleo-Siberian tribes, as, e.g., the Koryak and Gilyak. Among the Saghalin natives the bags are torn open just before the bear is slaughtered and he is permitted to devour the contents (p. 248).

<sup>561</sup> *Ibid.*, p. 493 and 491 (*marapto itangi*). It is also referred to as the "cup of offering" (*ipuni itangi*) because it is offered to the bear.



everyone present takes a small portion of the contents. This seems to be absolutely essential, according to Batchelor, for young and old of both sexes.<sup>562</sup>

This leads us to the customary observances connected with the eating of the bear. Let us return for a moment to the point in the ceremonies at which the bear was killed, for it is here that we discover a very characteristic practice which, while occurring earlier in the festival, logically falls under the present topic of discussion. I refer to the drinking of the bear's blood. This is done only by the men, and not all of them at that, but by doing so, one imbibes the stalwart virtues of the animal which, above all things, are most to be desired.<sup>563</sup> In order to obtain success in hunting the men also smear themselves and their clothes with the blood of the bear.<sup>564</sup>

One gathers the impression from the available accounts, that the flesh of the bear is not only agreeable to the Ainu palate, but on the occasion of a bear festival, at least, the eating of the bear is, on the subjective side, an integral part of the whole ceremonial complex to the extent that it is very necessary that everyone present must have his share. As Batchelor puts it, "Every member of the company partakes of some, (of the meat), however little it may be. It is thus that he obtains communion with his dear little divinity, as he calls the victim. . . . Not to partake of this feast and not to make *inao* would be tantamount to confessing oneself outside the pale of Ainu fellowship. Every particle of the bear, bones excepted, formerly had to be eaten up, even to the entrails, though this rule is now relaxed."<sup>565</sup> There are apparently

<sup>562</sup> *Ibia.*, 493.

<sup>563</sup> Batchelor, p. 490; Scheube, p. 51. In the latter account the animal is not cut up the same day it is killed but apparently the blood is drunk just the same. Scheube says that none of the women or children drank the blood, although the custom did not forbid them to do so. (It is not a question, perhaps of a definite taboo so much as a basic ideology which makes it desirable for men to acquire virile characteristics inappropriate for women.) Labbé, p. 255, observes that the blood of the bear is drunk warm by all present.

<sup>564</sup> Batchelor, p. 493, called (*yai-sho-ushi*) "besmearing oneself with good sport" or "successful hunting." It is done when some other animals are killed too (p. 494).

<sup>565</sup> P. 494; Labbé says guests had to eat up the whole animal before taking their departure. There is a tantalizing parallelism here to the "eat all" custom of some of the

no regulations which forbid women to eat certain parts of the animal,<sup>566</sup> but special tidbits are sometimes reserved for the hunter and his friends<sup>567</sup> and other portions are usually eaten raw.<sup>568</sup> In Saghalin there is a prohibition upon the use of salt and pepper at the feast upon the bear's meat<sup>569</sup> and it is forbidden to give even a morsel of the flesh to the dogs.<sup>570</sup>

*The Simpler Ceremonies of the Gilyaks and Ainu*

The practice of capturing young bears, confining them in cages and later killing them in periodic "bear festivals," is, as we have seen, one of the most characteristic features of bear ceremonialism in the Amur-Gulf of Tartary region. It clearly differentiates the peoples of this district from other tribes of Asia and America, among whom the post-mortem observances were performed after killing a bear in the hunt. This distinction, however, although valid enough, does not, as a matter of fact, categorically separate the former tribes from others who practice some sort of bear ceremonialism. The reason for this lies in the fact that it is customary in the Amur-Gulf of Tartary region also to perform post-mortem rites after killing bears in the hunt, although this set of customs has not been described in the detail which observers have lavished upon their more elaborate ceremonies. The nature of these observances among the Gilyak, however, is clearly indicated by Sternberg. In order to understand the meaning of the bear festivals, he writes,<sup>571</sup> we must remember that they are not

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northeastern Algonkians, in itself insignificant enough, but in view of the total complex of bear customs suggests an ancient feature which may at one time have had a considerably wider geographical provenience.

<sup>566</sup> Although there may have been taboos in the past. On Saghalin, e.g., Labbé (p. 255) reported that women were formerly excluded from the banquet upon the bear's flesh.

<sup>567</sup> *Ibid.*, p. 495. The fat and whites of the eyes which are mixed with the brains and boiled. Called "chopped up fine" (*chitatap*).

<sup>568</sup> *Ibid.*, p. 493. The entrails cut up fine, sprinkled with salt and eaten raw, are said to impart the prowess and other virtues of the animal; Scheube (p. 50) says the liver is cut in small pieces, salted, and eaten raw. Women and children ate of it, too.

<sup>569</sup> Labbé, p. 256. Cf. Lapps note 431.

<sup>570</sup> *Ibid.*, pp. 252, 155.

<sup>571</sup> Sternberg (1) p. 272.

"as is usually but falsely assumed, celebrated only at the killing of a house-bear but are held on every occasion when a Gilyak succeeds in slaughtering a bear in the chase. It is true that in such cases the festival assumes less imposing dimensions, but in its essence it remains the same. When the head and skin of a bear killed in the forest are brought into the village, they are accorded a triumphal reception with music and solemn ceremonial. The head is laid on a consecrated scaffold, fed, and treated with offerings, just as at the killing of a house-bear; and the guests of honor (*Narch-en*) are also assembled. So, too, dogs are sacrificed, and the bones of the bear are preserved in the same place and with the same marks of respect as the bones of a house-bear. *Hence, the great winter festival is only an extension of the rite which is observed at the slaughter of every bear.*" (Italics ours).

Labbé, writing of the Saghalin Gilyak, emphasizes the same point. He says that the true bear festival might more properly be called the feast of the hunter, because it takes place every time that a Gilyak kills a bear.<sup>572</sup> The successful hunter approaches the village crying out "*ointe!*", a word only used upon the occasion of a bear killing.<sup>573</sup> He wears the skin of the animal and upon his arrival the other men beat upon a "*bois sonore*" with sticks. They accompany the hunter to the woods and bring the carcass back. The next day a communal feast is held. *Inao* are manufactured in some villages and the skin and head of the bear are placed upon a sort of scaffold which is decorated with them. The meat of the bear, as well as other kinds of food, are cooked and served by the women. Part of the flesh is boiled<sup>574</sup> and part roasted. The men can eat it either way but it is taboo to women when roasted.<sup>575</sup>

An old man<sup>576</sup> usually presides at the feast but the owner of the house in which the affair is held<sup>577</sup> carves up the bear. This is

<sup>572</sup> p. 261 *seq.*

<sup>573</sup> Labbé says (p. 262) that this word has of itself no signification.

<sup>574</sup> In immense pots out of doors.

<sup>575</sup> It is only in summer that women are admitted to participation in the feast itself, although they cook and serve the bear meat in both winter and summer (p. 263).

<sup>576</sup> Called *Narkh*, p. 264. The important rôle of the *Narch-en* in the Gilyak feasts has already been referred to.

<sup>577</sup> This is usually the slayer of the bear and he is called upon, as is also the case

no simple matter, as each guest is supposed to receive a morsel of all the different parts of the animal. Preference is shown to the old men and the *narkh*. All of the guests must use a ceremonial knife (which lies on the table) to cut their meat, and if they forget this and use their own knives, the latter become the property of the host.<sup>578</sup> The head and skin are the property of the latter. He may sell the skin but not the head or paws.

In the case of the other Amur tribes, I have not been able to discover any published information regarding analogous customs, but there are a few allusions recorded for the Ainu which seem to indicate that some such practices were in vogue. I have already referred, in another connection,<sup>579</sup> to Bird's statement that the Ainu observed some propitiatory ceremonies after killing a bear in the woods and Batchelor writes<sup>580</sup> that "when a bear has been killed the Ainu sit down and admire it, make their salaams to it, worship it and offer presents of *inao*." "When the skinning is finished," he continues, "the head is decorated with *inao* and thanks offered first to the bear itself and then to the gods for protecting them and rendering them successful." The head, breast, and viscera go to the slayer and the rest of the meat is divided equally among the other hunters participating. A feast is held after their return to the village. Greey<sup>581</sup> says that the carcass of a slain bear was suspended from a tree and *inao* thrust into the liver. A piece of this organ was then cut off and eaten by one of the party with the admonition, "It will make you very strong."

Another interesting feature of Ainu bear hunting which is mentioned by several authors is the custom of taking any part of the

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in the periodic festivals, to bear the major portion of the expense of providing provisions, etc. But his exploit is talked about far and near and the prestige derived from this is compensation enough (p. 265).

<sup>578</sup> Certain bones of the animal are also distributed to the (especially invited) guests, both men and women, and these had to be handled in a peculiar way. See pp. 265-6.

<sup>579</sup> In our discussion of conciliatory speeches to the bear in the Ainu festival. Cf. Bird, II, p. 100.

<sup>580</sup> p. 472.

<sup>581</sup> p. 122.

beast into a dwelling through some other opening than the ordinary doorway.<sup>582</sup> Correspondences to this practice are, curiously enough, characteristic of such remote peoples as the Lapps on the one hand and the Micmac Indians of eastern America on the other. Among the Ainu, it is also customary to treat other game or fish in this way on certain occasions.<sup>583</sup> Except among the Saghalin Ainu<sup>584</sup> where Gilyak influence may explain the integration of this custom with other ceremonies characteristic of the periodic festivals, it remains connected with the observances of the ordinary hunt.

The performance of some sort of post-mortem rites as part of the ordinary bear hunt by the Amur-Gulf of Tartary peoples thus links them basically with other tribes which observe such customs, but which do not have periodic bear festivals. If more detailed information were forthcoming we might extend to the peoples of this whole region Sternberg's assertion, that the observances which characterize the bear festivals of the Gilyak are really an elaboration of the simpler rites practiced whenever a bear is

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<sup>582</sup> Usually the smoke hole or window. Batchelor (1), pp. 123-4, speaks of this practice in discussing what he calls the "Sacred East Window" of an Ainu dwelling. "When the highest deities are worshipped or when prayers are said to the ancestors they should often be addressed through the window. Also, when *inao* are to be placed among the *nusa* outside, they should be made and consecrated by the hearth and then passed through the window." It is termed *inao kush puyara*, i.e., "the window through which *inao* pass" or *kanui kush puyara*, "the window through which divine beings pass." It is taboo for anyone to look into a hut through this window. Greey (p. 131) gives a legendary explanation of this prohibition. In ancient times there was a god, skilled in hunting and fishing, who generously put the meat of bears, other game and fish in at the windows of Ainu dwellings. He finally became offended and left the Ainu country, but ever since it is said that only gods should look into a dwelling through the window. Greey adds that when going hunting, a woman passes her husband's implements to him through the window and that on his return everything captured is brought in through the same opening. See also sketch by a Japanese artist showing a woman passing out a spear to her husband (p. 173).

<sup>583</sup> Batchelor (*op. cit.*) refers to deer and birds specifically, and Greey, (*op. cit.*) to game in general. St. John (p. 253) says the first fish of the season are treated in this way.

<sup>584</sup> Labbé, pp. 255-6. The head, skin, and meat are passed through the smoke hole when they are introduced into a dwelling during the course of the bear festival. I have not found any reference to such a practice in the descriptions of Yezo bear festivals.

killed. At any rate, such an hypothesis is very illuminating from an historical viewpoint, suggesting, as it does, that the periodic festivals are probably more recent cultural developments than the more widely distributed rites observed in connection with the hunt. Whether the Gilyak, as Torii maintains, actually represent the dynamic center in a process by which the more elaborate bear festival was transmitted by diffusion to the Ainu and other peoples of the region, it is difficult to say. The more basic question to my mind is the extent to which the simpler rites were practiced, and their characteristic form. The *direction* in which the borrowing of specific features has taken place does not, it seems to me, admit of a very satisfactory solution without some further knowledge of these observances among the peoples of this entire region.

#### DISPOSAL OF REMAINS

Even after the carcass of a bear has been respectfully treated in a conventional manner and the flesh eaten, there are still additional obligations for the hunter to fulfil. It is necessary that the bones of the beast, and more especially the skull, should be disposed of properly. We undoubtedly have here, despite rather meager information on the whole, a series of customs associated with the bear, which form part of a much wider category of practices observed in connection with the disposal of remains of other game animals. I shall endeavor to show, therefore, a relative consistency in the treatment of the remains of bears as compared with the other animals. This will apply both to the objective practices which we shall review and, to a large extent, to the explanation most frequently advanced for the customs.

In by far the majority of the tribes studied in northern North America and Siberia as well, a special emphasis is placed upon the preservation of the bear's skull, which is usually placed upon the branch of a tree in the woods, on a pole in some instances, or deposited in an ostensibly sacred place in the forest, sometimes along with the skulls of other animals. The treatment accorded other parts of the skeleton show a much greater variation in practice, but associated with these customs is a widespread taboo which is offered as an explanation of them among a large number of peoples.

It is said that the bones of the bear, and often other game animals, must be kept out of the way of dogs.<sup>585</sup> Should a dog gnaw or even touch them the "spirit" or "owner" of the animals will be offended and misfortune or poor luck in hunting will result.

#### NORTH AMERICA

##### *Eastern Woodlands*

Among the *Wabanaki* peoples, so far as we have information, it was the custom to hang a bear's skull on the tree near the spot where the animal was killed.<sup>586</sup> Information regarding the conventional disposal of the other bones is not available, but in some of the tribes of the group, if not all,<sup>587</sup> there was a taboo upon allowing dogs to touch them, as well as the bones of other animals.

That the custom of hanging up the skull of the bear may have been practiced by the more southerly coastal Algonkians is a plausible interpretation advanced by Skinner<sup>588</sup> to account for the absence of bear bones and teeth in many Algonkian refuse sites of this region.

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<sup>585</sup> This taboo is very widespread in North America and applies to many different species (see, e.g., the bibliographical note in Frazer, p. 259). Its special association with the bear is much narrower than the geography of the Ursidae. Among the peoples where this taboo applies to bear bones we have attempted to indicate the other animals for which it holds so far as information is available.

<sup>586</sup> Micmac (Joe Toney); Malecite (Mechling, p. 101, note). Care was taken to place the bones and skull "out of the reach of other animals, so as not to scare away the spirits of the bears." Although there is no specific reference here to placing the skull on a tree the practice of closely related tribes leads one to suppose that this was probably the case. St. Francis Abenaki—One informant stated that it was formerly the custom to hang up the skulls of other animals, e.g., caribou, moose, deer, in a similar way so that the teeth would distinctly show. One of Hind's guides (1, p. 53) was an Abenaki from either Pierreville or Becancour (p. 5) and when traveling with the explorer on the east branch of the Moisie River he said, referring to a bear he had killed the previous year, "You can see the tree where I killed him and his split skull hanging on a pole close by" (the animal had been slaughtered with an axe). The contemporary Penobscot do not know of this custom.

<sup>587</sup> See Malecite (previous note). Among the Abenaki there was a taboo against allowing dogs to gnaw the bones of beaver as well as bear. The former were thrown back into the water, as were fish bones. The bones of caribou were left where the animal was killed and the dogs were not forbidden them. Marten bones were collected and left in a pile.

<sup>588</sup> (7), p. 117.

The *Montagnais-Naskapi* either erect a special pole<sup>589</sup> on which they hang the skulls of bears, and sometimes those of other animals, or utilize the branch of a tree for the same purpose.<sup>590</sup> It is also thought desirable to place tobacco in the mouth, or in some other orifice of the cranium.<sup>591</sup> The latter is sometimes painted with one or more bars of red pigment.<sup>592</sup> Dogs are not allowed to touch the bones of a bear and the necessity for carrying out this restriction is frequently given as the reason for treating the remains

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<sup>589</sup> James Mackenzie (p. 415) is the earliest observer to record this custom. He writes, "The bones being torn from the flesh or rather the flesh from the bones, they are with ceremony, suspended to a *mai* (Arbre de mai—flagpole) which has been previously erected for that purpose." Cf. Chambers, p. 316, who presents a sketch of one of these poles with several skulls attached to it. Among the Mistassini (MS text, F. G. Speck) the skulls of bears are carefully picked clean of meat and carried about all winter. When a family makes its spring camp, a pole, carefully peeled of bark, is erected on which they are hung. In some cases these skulls are even carried from one summer until the following spring in order to bring them all together in the same place. Dr. T. Michelson writes me (March 13, 1924) to the same effect. He says, "At graves formerly there was a staff. On this were placed bear head bones and the bead bones of other animals, even that of a duck." References to the hanging up of parts of other animals are: Chambers (p. 316), beaver skulls; (p. 318) pike's head on a pole (near Lake Tschotagama). The Mistassini also preserve the chin, lower lip and tongue string of a bear, which are kept in a birch bark receptacle. The claws must not be destroyed either. MS. notes F.G.S.

<sup>590</sup> Hind (p. 183) refers to a bear skull stuck on a dead branch of a tree near Trout Lake. It had been killed by Dominique, chief of the Moisie Band, two years before. The explorer wished to take it down but was dissuaded by an adopted son of Dominique who said it would be unlucky to take it away. The Indian related the story of a man who was bitten in the leg and mauled by a bear, the result of his indiscretion in taking a skull from a tree in order to throw it at a partridge because he had no weapon at hand. At Kiskisink (P.Q.) in 1917 there were several bear's skulls hanging on a tree near the camp of an old woman hunter of the Lake St. John band. Baptiste Picard (Seven Islands) and Pitabano (Ungava) stated that this custom was the usual one in their bands. Cf. the statement of Tailhan, Blair, I, p. 132, note 99. Comeau (p. 85) refers to this custom and says the rest of the bones were burned.

<sup>591</sup> Among the Mistassini some tobacco was rolled up in a piece of birch bark and stuck in the nasal orifice of the skull or fastened to the head bones. (Information Dr. Michelson and Dr. Speck.) It was also desirable for passers-by to place a bit of tobacco in the skull of a bear that they might see hanging to a tree in the woods. Cf. Chambers, p. 315.

<sup>592</sup> If a man has killed a bear as the result of a dream he marks the skull with a couple of bars of red paint before lashing it to a tree (Picard, Seven Islands). Pitabano (Ungava) maintained that one bar on the forehead was proper under these circumstances.



of the animal in this characteristic manner<sup>593</sup>

The *Northern Sauteaux*<sup>594</sup> also erect poles for the purpose already described in the case of the Montagnais-Naskapi. Skinner describes and figures one which was erected by a Lac Seul Sauteaux. The bark was intact on the lower portion of the pole but at three foot intervals there were peeled bands about one foot in width. These had been rubbed with red ochre.<sup>595</sup> On it were hung, in addition to a bear's skull, the skin of the animal's muzzle and its ears, as well as offerings of tobacco and ribbons.<sup>596</sup> Some Sauteaux claimed that the skull should be painted with charcoal,

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<sup>593</sup> See Chambers, p. 315; Le Jeune, p. 219. Hind, 1, p. 185, says that the bones were buried; II, p. 110, quotes Pere Durocher (1853) in regard to a general taboo of this sort, the belief being that the spirits of the animals would become hostile if their bones were given to the dogs. Picard was clear in advancing this belief in regard to bears in particular. Mackenzie (p. 415) extends the taboo to the bears' flesh and says that should the taboo be broken the "vile animal is instantly slaughtered, the flesh devoured and each guest must eat a teaspoonful of his excrements, and then the bones are hung to a tree." For the Lake St. John Band it may be stated that the taboo applied to the bones of all game animals. An infringement of it would endanger luck in hunting and the normal increase of the animals hunted. Cf. Comeau p. 85.

<sup>594</sup> Skinner (7), p. 117, sums up his observations on the custom under review as follows: "All of the northern and central Algonkians with whom the writer has come in contact, including the eastern and plains Cree, the northern, central, and plains Ojibwa, and the Bungi, Menomini, and Potawatomi have special observances connected with bear hunting. These invariably include the preservation of the skull, generally by placing it in a tree or on a pole, and usually the protection of the bones of the bear from falling the prey of village dogs."

<sup>595</sup> Skinner (1), fig. 56. The Indian who had erected the pole refused to sell it, nor would he part with the objects hung on it "for fear that the next bear he met would attack him." Cf. Montagnais-Naskapi belief *op. cit.* The author says that "bear poles are very frequently seen on the journey from Lac Seul to Lac St. Joseph on deserted camp sites but are not found north of this" (p. 162). Long, near Lake Abitibi, saw a pole "daubed all over with vermilion paint" fairly close to a deserted camp site. He says that on the top of it "were placed three human (*sic*) skulls, and the bones hung round." This description sounds suspiciously like that of a bear pole, unless we are to accept it as a peculiarly anomalous custom not recorded by other observers.

<sup>596</sup> Skinner (1), p. 162. Skinner believes that some of these customs may have been derived from the eastern Cree as they are most typical of the northern Sauteaux bands, according to his personal observations. While this is a distinct possibility, the wide provenience of erecting a pole or preserving the skull in a tree makes it difficult to point out the direction of diffusion of the custom with respect to any particular group. At deserted camps on Lake St. Joseph were to be seen "skulls of moose together with bears' ears, bird wings, and skulls, and moose bones hung up on trees." P. 164.

but with no other pigment. Usually it was not painted at all.<sup>597</sup> Dogs are never allowed to get at bear bones.<sup>598</sup>

The customs of the eastern Cree,<sup>599</sup> Tête de Boule,<sup>599a</sup> Timagami Ojibway,<sup>600</sup> and Timiskaming Algonquin,<sup>601</sup> are similar in their major aspects to those of peoples already described.

Among the *Plains Ojibway* (Bungi) the bones of the bear could not be thrown to the dogs but were carefully preserved, wrapped

<sup>597</sup> *Ibid.*, p. 162. This is one feature which, according to the author, differentiates the northern Saulteaux practices from those of the Cree.

<sup>598</sup> *Ibid.*, p. 163. Skinner saw moose bones given to dogs but those of beaver, mink, otter, muskrat, loon, and duck were thrown back into the water or hung out of the reach of dogs for fear of offending the "spirits" of the slain creatures. Cf. Reid, who says that a dog is never allowed to eat the flesh or gnaw the bones of a bear. If this happened the "subsequent chase of the animal would be unlucky."

<sup>599</sup> Skinner (1), p. 70. The skull of the bear is carefully cleaned and the brains removed. It is decorated with vermilion (see fig. 37), kept in a safe place by the slayer for three to six months (cf. Mistassini, *op. cit.*), and then taken secretly and hung on a tree in the forest. On p. 69 the author states that a bear's bones "are never given away, unless the bear's flesh is served as a feast in the lodge of the slayer. In any event, they are carefully cleansed, saved, and hung up or placed on a scaffold where the dogs cannot reach them." We do not have any record of the Cree erecting poles or of the offerings of tobacco so characteristic of the Algonkians elsewhere, but the details we have are so meager that the negative evidence may not be of any significance. Franklin (p. 64) refers to the fact that the Cree hunters avoided bringing moose and deer to the post "lest the white people should give the bones to the dogs." The skin of the under lip was saved and, together with a piece of the tongue, bones, and claws, kept by the hunter as talismans.

<sup>599a</sup> The skull was hung in a tree, the other bones thrown into a river or lake to keep them out of the way of dogs. A knife was often made of the bear's thigh bone. The fore-paws were saved and used for divination. Information, D. S. Davidson.

<sup>600</sup> Speck (1), p. 27. The skull is "painted with a black stripe from nose to occiput and another stripe perpendicular to this across the crown; a black spot in each quarter. Then a spruce tree is trimmed of bark, but left standing in its natural position; the skulls are tied to the trunk, and ribbon streamers are tacked to the top of the tree and red bands painted around the peeled portion at intervals." Moose and caribou antlers were placed on a tree stump and skulls of beaver were placed in the branches of a tree near where the animal was killed. To neglect this was thought to weaken the power of a hunter.

<sup>601</sup> Speck (2), p. 26. After the bear feast "the lower jaw bone is tied to the skull in its proper position and black stripes are painted on the skull. This is then put on the stub end of a branch of a tree facing some prominent point toward the river or lake, near the water's edge. Here it can be seen by passers-by as a reminder of the place and occasion of the bear feast." Some hunters, in order to ensure success in their enterprises, "preserve the skulls of all the game they kill." P 24.

in a bundle, and hung on a tree. The nose was often carried off into the woods and hung up in some secret place.<sup>602</sup> The *Plains Cree* on the other hand, do not preserve the skull of the bear, or hang it up on a tree or pole, and the bones of the animal are not kept away from the dogs.<sup>603</sup>

South of the Great Lakes the *Menomini* and *Forest Potawatomi* are the only Algonkian people from whom we have information on the points under review. It is, perhaps, indicative of the ancient character of these customs that despite the more sedentary emphasis in their economic life, as contrasted with their northern congeners, they retain a reverential attitude toward the bear and several of the characteristic practices found in the north are known to them. Among the Menomini the skull and lower jaw of a bear are tied together<sup>604</sup> and broken cedar twigs are thrust into the nostrils. It is hung up in a sacred place in the slayer's lodge for a time and later hung on a tree in a "clear place" in the forest.<sup>605</sup> The other bones must not be broken and should be kept away from dogs. They are wrapped up, some tobacco tied with them, and then they are thrown into the river.<sup>606</sup> The Potawatomi exhibit a variant custom. They preserve the shoulder blades as well as the skull, but apparently do not hang them up on trees or poles.<sup>607</sup>

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<sup>602</sup> Skinner (4), p. 510. Particular mention is not made of the skull.

<sup>603</sup> *Ibid.*, p. 541. Jacob Bear (an eastern Cree) told Skinner that the practices of the plains people, among whom he was then living, were entirely at variance with his father's habits. The "bell" pendant of a moose, however, is hung on a tree nearby after the animal is killed, "as an offering to the gods." (sic)

<sup>604</sup> Cf. Timiskaming Algonquin, *op. cit.*

<sup>605</sup> Skinner (3), p. 213, also (5) p. 179. The brains are removed through a hole made in the right temple. Cf. Gold, note 620.

<sup>606</sup> Skinner (3), p. 213. In winter a hole is chopped in the ice. "The reason for this custom is the belief that the bear will come to life again and return to be re-caught if all of his bones are together and well cared for." A similar explanation is given by the St. Francis Abenaki for returning beaver bones to the water. It is even said that if the bones are thrown into a lake where no beaver were before, the animals will later appear.

<sup>607</sup> Skinner (field notes) says that they are wrapped in birch bark and placed in a little outhouse. The shoulder blades were probably used for purposes of divination. See Speck (9).

*Mackenzie Area*

Although we have so little specific information of a sound ethnological character for the various Athabaskan tribes of this area, we may perhaps accept the generalization made by Father Morice regarding the treatment of bears' skulls among the Déné known to him. He writes, ". . . they put the bear's head out of the reach of dogs or wolves, unclean animals with which contact is defiling, and therefore, humiliating for the whole bear gens, which would not fail thereafter to avoid giving the careless hunter another opportunity of allowing such unbecoming treatment."<sup>608</sup> In another place he states clearly that among the Carrier, the skull is "invariably stuck up on a stick or the broken branch of a tree."<sup>609</sup> Among the Ten'a neither the bones nor the flesh of a bear must be given to dogs, but apparently it is not customary to hang up the skull.<sup>610</sup>

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<sup>608</sup> The occasion for the statement of Morice is instructive. He is pointing out this custom as a parallel to the practices of the Siberian natives, a fact which he says "all travelers in Asia and America have noticed." See Morice (4), pp. 171-2. Cf. (5), p. 129. The Tahltan of the Stikine River burn the skulls of bears and seldom place them on poles. "Farther east among other Tahltan and among the Kaska they are generally placed on poles or in trees." (Information Mr. Jenness from notes of J. Teit.)

<sup>609</sup> The author adds here that the natives give no reason for the practice, but in the quotation cited above he seems to have cleared up the point for himself. Marten and beaver also must be kept away from dogs. Morice (2), p. 108.

<sup>610</sup> Jette (2), p. 605, gives only the briefest reference to the matter. They may not be thrown away carelessly or put into any dirty place. He specifically mentions burning them or throwing them into the river, adding that during the winter "the water hole from which the daily supply of water is obtained is almost filled with these bones." There is no doubt regarding the prevalence of the idea among the Athabaskan tribes that dogs contaminate game animals by contact. See, e.g., Pike, p. 56, who writes that caribou bones among the Yellow Knives and Dog Rib are sometimes put up in a tree; Harmon, p. 314 (beaver bones); Hearne, p. 307; Dall, p. 89, for Tinneh of Alaska, with special reference to beavers and sables; Morice (2), p. 108, for the same animals among the Carrier, also the anecdote told by the author in his *Au pays de l'Ours Noir* (1897), p. 71, quoted by Frazer, p. 239.

*Plateau*

Among the Thompson River Indians,<sup>611</sup> the Lillooet,<sup>612</sup> Shuswap,<sup>613</sup> and Chilcotin<sup>614</sup> it was customary to elevate bears' skulls on poles or trees. While we find it recorded for these tribes that the bones of certain game animals must be kept away from dogs, and it would appear to be a fairly general concept among them, the bear is not specifically mentioned in this connection.<sup>615</sup> It seems inconceivable, however, that this animal should escape the application of this ideology in view of the practices referred to.

## EURASIA

That the custom we have been considering prevailed over a considerable portion of Siberia is not to be doubted, although the evidence we have been able to collect for this region is scattered and the details we were able to assemble in the case of some of the American aborigines, unfortunately, are lacking. The preservation of bear skulls and the practice of placing them in the woods, on trees, or in some special place, has been reported for the following peoples: Kamchadal,<sup>616</sup> Yukaghir,<sup>617</sup> Yakut,<sup>618</sup> Manyarg,<sup>619</sup>

<sup>611</sup> Teit (4), p. 347, says that when the flesh of a bear's head had been eaten, the skull was tied to a small tree top, as high as could be reached, and left there. The men who put it there always painted their faces in a certain way. It was considered a mark of respect to carry out this custom. If it were not done bears might take offense and the hunter would be unable to kill any more of them. Deer's heads (p. 346) were sometimes placed on trees so as to be beyond contaminating influences, particularly of women and dogs.

<sup>612</sup> Teit (1), p. 279. "The hunters (after address) painted both sides of their faces black, and, after butchering the bear, raised its head on the top of a pole, or hung it to the branch of a tree. Some hunters threw it in the water. Thus the bears would be pleased, and would neither seek revenge nor give bad luck to the hunters."

<sup>613</sup> Teit (2), p. 603. The skulls were "raised on the tops of tall poles."

<sup>614</sup> Teit (3), p. 789. "Invariably elevated on poles."

<sup>615</sup> See Teit (4), p. 346, for the Thompson's method of safeguarding deer bones: the Lillooet (Teit [1], pp. 281-2) threw deer and beaver bones into the water for the reason cited; Shuswap (Teit [2], p. 603) regarding deer and beaver; Boas (5), p. 642, reported for the same people that beaver bones were thrown in the river. Dogs were not allowed to gnaw or to eat beaver meat.

<sup>616</sup> Steller, p. 117, writes that they hung the skull and haunches (Hüften) either under the rafters of their houses or outside of their dwellings upon trees. Krashennikoff, p. 103, refers only to the former practice.

<sup>617</sup> Jochelson (4) refers to the fact that the skull and other bones are put on a platform in a special hut. Inside of the skull are put shavings. While doing this the

Gold,<sup>620</sup> Gilyak,<sup>621</sup> Oltscha,<sup>622</sup> Ainu,<sup>623</sup> Tungus (Northern),<sup>624</sup>

natives say, "Your brain we put in now." A piece of wood is also put in which represents the tongue. This treatment of the remains is for the purpose of keeping the skeletal parts out of the way of dogs and is done in the case of elk and deer, also. It is believed that if the bones of the animal are assembled it will come to life again. Jochelson (2), p. 148.

<sup>618</sup> The bones are collected, wrapped in birch bark, and hung on a tree (Galitzin). Middendorf, IV, p. 1609, writes that the skulls are hung up on trees to keep them out of the way of dogs.

<sup>619</sup> Atkinson, p. 369. "In their encounters with the bear they are careful not to injure his head, as they offer it to their god (sic) and it must be without blemish, enclosed in birch bark and suspended from a tree: this they believe to be a certain antidote against evil spirits."

<sup>620</sup> Lansdell, II, p. 233, note, refers to the interior of a house in which bear skulls and bones adorned the walls. Von Schrenck (pp. 730-1). Bear skulls are hung to the branches of trees. They do not split the skull, as the Gilyak do, although the ones he examined each had a large perforation in one side or the other through which the brain had been removed. Other bones of the animal are hung up, too, instead of being buried as among the Gilyak.

<sup>621</sup> Bush, p. 124, writes that "upon all sides, scattered through the woods, were skulls of bears poised upon the stumps of small trees, from four to six feet above the ground." He calls these offerings, and then adds that when newly placed in position they were "sprinkled with tobacco, berries, roots, and other articles." Lansdell, II, p. 233 (note), says the ears, jaw bones, skull, and paws are hung on trees, "Occasionally, the skull is split and suspended in their houses." Cf. Von Schrenck, pp. 730-1. The skulls of bears killed in their festivals are split by a special instrument (see plate 51, fig. 5), a proceeding which strangers are not allowed to witness. After the brain is removed the skull and bones are taken out of the house with a great deal of ceremony by the older people and carried to the forest. All of the bones except the skull are buried. The latter is wedged into a cleft made in the stump of a young tree felled near the ground. Sternberg (1), p. 271, says the head and bones are "in das traditionelle Gebäude fortgebracht, das zur Grabstätte der Reliquien des heiligen Tieres dient." The Gilyak of Saghalin (Hawes p. 202) take the skulls of bears into the unfrequented parts of the woods and place them on sticks. Scheube, quoting an observer named Joest (p. 236), says the skull is placed with shavings (inao?) in a tree near the house. Labbé, p. 267, writes that the skull is temporarily placed in a little store-house used for fish and later carried to the edge of the forest.

<sup>622</sup> Von Schrenck, p. 731. The Oltscha customs are the same as those of the Gilyak.

<sup>623</sup> The *nusa* or "sacred hedge" is the special depository for the skulls of bears killed in the chase as well as those sacrificed at Ainu festivals. Batchelor, p. 494, writes that a "tall pole is here set up having a fork in the top; the prongs of which are ornamented with inao." It is called *keomande-ni*, i.e., "the pole for sending away"; see Fig. 495, and, for a sketch of a *nusa*, p. 90. This author saw a collection of two hundred such skulls outside of one hut. They are called *akoshiratki kamui* (divine preservers), and libations and offerings are made to them from time to time. Cf. Von Siebold,

Samoyed,<sup>625</sup> Ostyak.<sup>626</sup> Among the Yukaghir and Yakut our authorities state that the natives maintain that this is done in order to keep the bones from the dogs. Inquiry would no doubt reveal a similar notion in other cases.

#### COMPARATIVE DISCUSSION OF POST-MORTEM OBSERVANCES

The multiformity of the post-mortem customs connected with bears has been sufficiently brought out in the foregoing regional survey of the concrete data and needs no further comment at this point. Yet, in spite of the wide differences in these customs and the variations which occur even within the bounds of the areas where similarities predominate, one is also impressed with certain intercontinental correspondences, the character of which we shall now discuss.

1. Throughout the regions of both continents where ceremonies are performed after killing a bear, there seems to be an *underlying trend* in the customs described, despite much variation in detail. I refer to the conciliatory spirit in which they are carried out. No matter whether the observances themselves are simple or elaborate, their purpose seems to consistently imply an ostensible

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pp. 18, 26; Scheube, p. 234; Landor, pp. 214, 282, 286, and illustration, p. 281; Bird II, p. 99; Von Brandt, p. 134; Hitchcock, pp. 472, 476; sketch p. 481 and plate cxii; Labbé, p. 257.

The skulls of certain other animals are sometimes similarly treated, e.g., foxes (Scheube, p. 234); (Landor, p. 214) wolves (*ibid.*, p. 214) and deer (p. 286). Fox skulls are usually kept in the huts. See Batchelor, pp. 352-4, 505, and Von Brandt, *op. cit.*

<sup>624</sup> Czaplicka (1). "The bones of the bear must be placed just as they are in a bag, and hung on a tree. If one bone is lost, the spirit of the bear will hold the hunter responsible for it."

<sup>625</sup> Jackson speaks of the sacrificial piles of the Samoyed (one of them on the island of Waigatz is figured on p. 34 of the author's *Great Frozen Land*) which he says are "rude heaps of sticks, antlers and bones. They all contain bear skulls as well as those of other animals. Sometimes the skulls are stuck upon the so-called "*bolvan*" (erect posts with the end roughly carved to represent a human face). They are sacred and even though surrounded by driftwood a Samoyed will never take a piece from here. It may be worth mentioning that, although there is no reference to bear's bones, some of the Samoyedic peoples (see Middendorf, p. 1447) consider it a sin for a dog to gnaw the bones of the wild reindeer.

<sup>626</sup> Gondatti, p. 77, says that at the end of the period of celebration the skull is hung on a tree in the belief that this honors the bear and it will therefore bring good luck to those participating. The claws and canine teeth are also preserved.

demonstration of respect toward the bear. In the cases where we were able to throw any light whatsoever upon the actual motivation of the ceremonies, in terms consistent with native thought, this interpretation was amply demonstrated. The bear was believed to represent, or was under the spiritual control of, some supernatural being or power which governed either the potential supply of certain game animals, or the bear species alone. It is the propitiation of this supernatural agent which is actually desired and not the animal itself, conceived simply as a terrestrial creature. The bear veneration of these peoples is not "animal worship" in a crude or narrow sense, therefore, unless we mean by this term the propitiation of the supernatural controller of the bear. In some of the tribes surveyed, in fact, this would amount to the worship of an independent deity. But, it is necessary to perform the established ceremonies, whatever terms we may prefer for them, in order that more bears or other animals may be released by the spiritual controller of the bears. In this way man is able to advance his own material welfare.

The ceremonies performed by the Pueblo Indians of North America do not, as far as I can see, manifest the trend described above. The treatment of the bear as a *slain enemy* would be just as foreign to the Lapps as to the Algonkians of the Eastern Woodlands of America, or to the Siberian peoples. The northern peoples, however widely separated, show a fundamental similarity in this respect, therefore, which the peoples of the Southwest, although exhibiting certain external analogies, fail to exhibit. Altogether, their treatment of the bear seems more aberrant, compared with all of the northern peoples discussed, than do the geographically most remote of the latter in respect to each other.

2. In addition to the underlying trend which characterizes the bear ceremonies of both continents, there are basic analogies in the character of the observances themselves, which, with few exceptions, are also intercontinental in their distribution. The most widespread and important of these are the following:

- a The rites are always performed after the animal is killed and in connection with eating it.<sup>627</sup>

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<sup>627</sup> Aside from differences in the motivation and ideology of the Ute and Kutenai observances, the mere fact that the occasion of the ceremonies which they perform is



- b* The carcass of the animal, its head, or its head and skin, is the special focus of ceremonial attention.
- c* Offerings are made to the bear (or its supernatural controller). If food, it is placed before the animal; if in the form of objects, they are placed on the head, carcass, or skin. There seems also to be a decorative side to this custom in some cases, that is, an effort to "dress up" the creature in borrowed finery.
- d* There are prescriptions and taboos in connection with eating the bear in which sexual differences are emphasized. Certain parts are usually taboo to women, it being a male prerogative to eat them.
- e* The ceremonies are usually part of a communal feast, or celebration, an event of some social importance, to which friends and neighbors are bidden.

3. Although very few in number and extremely scattered in distribution, specific correspondences in the post-mortem customs connected with the bear are not entirely lacking. We shall simply mention in summary form those which occur in both North America and Eurasia:

- a* The special disposition of the skull of the bear is the most widespread of these, together with the explanation that it is done in order that the dogs may not defile the bones of the beast.
- b* In skinning a bear the hide is slit from the throat downwards (Lake St. John Montagnais, Mistassini, Penobscot, Tête de Boule, Gilyak.<sup>628</sup>)
- c* Reference is made to stuffing the skin of a bear by one of

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dissociated from the actual killing of the bear itself, serves to place them in a category entirely apart from the observances of the majority of the peoples under discussion.

<sup>628</sup> The significance of this custom among the Indians lies in the fact that this procedure is followed *only* in the case of the bear. Whether this is true of the Gilyak is not stated. The lack of details regarding the skinning of the bear in the case of other peoples studied makes it impossible to interpret the significance of the parallel with any satisfaction, but this case illustrates the potential importance which may be latent in apparently insignificant details of culture.

the earliest writers on the Montagnais-Naskapi and this is also done by the Koryak and Ostyak.

- d* The carcass of the bear or certain other parts of the animal are not introduced into a dwelling by the door but through some other opening (Mimac, Ainu, Gilyak, Lapps).<sup>629</sup>
- e* Women are forbidden to look at the dead bear (Mistassini, Ostyak) or are required to leave the dwelling into which it is taken (Montagnais, Micmac, Finns).
- f* The feast of the bear's meat is characterized by the "eat all" feature (Montagnais, Eastern Cree, Tête de Boule, Ainu, Asiatic Eskimo (head), Lamut, Lapps).
- g* The men eat the heart of the bear (Northern Sauteaux, Gilyak, Northern Tungus, Ostyak, Vogul, Lapps).
- h* The offering of food made to the bear is not characteristic of the Algonkian ceremonies<sup>630</sup> but connects the Nootka and Kwakiutl of the northwest coast of America with the Asiatic Eskimo, Koryak, Kamchadal, Gilyak, and Ainu, all of whom lay considerable emphasis upon this practice.

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<sup>629</sup> This custom, although not always associated with the bear, is one which is clearly of wide provenience in America. Among the Eskimo (west coast of Hudson's Bay, Boas [2], p. 148) the meat and skins of caribou killed in the fall are taken into a snow house through a hole cut in the rear. Salmon among the Ukusikaljirmiut are also introduced by a separate entrance (Boas [1], p. 595). In both these cases the custom is connected with the notion that land and fresh water creatures must be handled differently from those which dwell in the sea. The Carriers (Morice [2], p. 107) never bring a lynx in through the doorway. They use the smoke hole instead, as the women pass through the former, and they are forbidden any contact, no matter how remote, with this animal. When a woman returns to a Babine lodge after childbirth seclusion, animals are brought in through the smoke hole for a few days in order to remove them from any potentially bad influence which a woman in this condition may exert (Hamilton, p. 207). Deer meat was taken in through a hole in the back of a Thompson dwelling (Teit [4] p. 346) because women who are ceremonially unclean use the doorway and might therefore offend the animals. Apparently, the Lillooet (Teit [1], p. 269) followed a similar custom as it is stated that "women never passed by the back of a hunting lodge because game was taken in that way or was cached there."

<sup>630</sup> Throughout the Eastern Woodlands tobacco inevitably appears as an offering in the bear ceremonies but the bear is never "fed." The food offering also disappears when we leave eastern and northeastern Siberia. It is not characteristic of the Finno-Ugrian ceremonies.

## HISTORICAL DEDUCTIONS AND CONCLUSIONS

We have now completed our survey of the most characteristic customs, ceremonies, and beliefs which center around the bear in North America and Eurasia. In the course of our investigation we have indicated both the similarities and differences which occur and, so far as possible, the cases in which customs associated with bears are also practiced in connection with the hunting of other animals. In regard to this latter point we may advance the conclusion that no other animal was found to attain such universal prominence as the bear, nor to have associated with it, over such a wide geographical area, such a large series of customs. Of all the game animals hunted in the north, the bear is the most constant recipient of special attention, even when, as in north-eastern Siberia, the respect evidenced toward other creatures and the ceremonial treatment rendered to them by certain peoples, equals that meted out to the bear. This fact is undoubtedly one which needs explanation, aside from the more perplexing question as to whether or not the typical ceremonies connected with the bear on both continents have any historical roots in common.

## THE PSYCHOLOGICAL HYPOTHESIS

As we have indicated in our introductory discussion, certain writers have advanced a psychological explanation of man's regard, reverence, or veneration for particular animals. Does this hypothesis aid us in interpreting the attitudes and practices connected with bears which have been surveyed in the course of our investigation, or does it throw any light whatsoever upon their history? Can we say, for instance, that the common characteristics exhibited by the various species of bears (to say nothing of their differences), have made a similar impression upon the human consciousness everywhere, ergo, bear veneration and ceremonial practices have inevitably arisen?

To begin with, we may admit that among the animals found in the habitat of the natives of North America and northern Eurasia, the ursine species are distinguished by characteristics which lend themselves more readily to anthropomorphization than those of other animals. Bears *do*, first of all, seem to possess

sagacious qualities. Those who have had the best opportunities to make a close study of them all remark this fact.<sup>631</sup> Then, too, the omnivorous habits of these creatures make them genuine competitors of man in the pursuit of food;<sup>632</sup> on occasion they raise themselves upon their hind legs in a human-like manner or sit down against a tree with their paws, like arms, at their sides and perhaps one leg drawn up under the body; their plantigrade locomotion leaves an impression in mud or sand much like human feet (a heel, arch, and toes being distinguishable),<sup>633</sup> and their excrement is similar to that of human beings, only considerably larger.<sup>634</sup> In emotional behavior the bears also exhibit a range of facial and bodily expression which is very human.<sup>635</sup> When attacked the animals often whine in a pleading way and tears may even appear in their eyes.<sup>636</sup> They even resemble human beings in their well known tendencies to masturbation (at least in captivity), and when skinned the human-like proportions of the beast have received repeated comment in primitive and contemporary society alike.<sup>637</sup> Add to these characteristics the peculiar habit of hibernation without food—a phenomenon which must be specially curious and mystifying to the unsophisticated mind—and one can in this case read undoubted plausibility into the psychological

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<sup>631</sup> Consult, e.g., the books of Wright and Hornaday. The latter in his 1,000 point scale of animal intelligence (p. 41) gives the grizzly a rating of 725 and the brown bear (European) one of 650. The gorilla gets only 500; the beaver 725. See also chap. XII. On p. 124 this author writes: "From sunrise to sunrise a bear is an animal of original thought and vigorous enterprise. Put a normal bear in any new situation that you please, he will try to make himself master of it."

<sup>632</sup> Hawes says (p. 168) that the Gilyak actually look upon the bear in this way.

<sup>633</sup> See Thompson-Seton, II, pp. 1079, 1085.

<sup>634</sup> *Ibid.*, II, p. 1087.

<sup>635</sup> Hornaday (p. 127) writes: "Next to the apes and monkeys, I regard bears as the most demonstrative of all wild animals. The average bear is proficient in the art of expression." Also *passim*.

<sup>636</sup> See Sternberg's realistic account of the behavior of the animal when shot ([1] p. 267).

<sup>637</sup> The Montagnais-Naskapi point this out and the Eskimo taboo on bear meat mentioned by Boas (2), pp. 148, 489, is evidently based upon the same observation. The Chukchi (Bogoras 325) also say that a skinned bear closely resembles a man. Cf. Sternberg's vivid description of the carcass of a bear in terms of Gilyak psychology ([1], pp. 267-8).

hypothesis. Such traits as these are surely of a type which, conceivably, might lead directly to an anthropomorphic conceptualization of the species.<sup>638</sup> Having compelled human interest, the human qualities of bears may have also aroused awe, wonder, fear or some other emotional response which, in turn, gave rise to an attitude of veneration and propitiatory observances. Thus might run the psychological interpretation.<sup>639</sup>

Aside from the question of ultimate origins, regarding which one guess is as good as another, do the data assembled support or contradict this thesis? The essential question is whether the "human traits" of the bear can be said to be related causally to bear veneration, or other customs, as they actually exist in the tribes surveyed. I think not, particularly if we weigh against this interpretation certain other important considerations.

1. Whereas the "human traits" of the bear are readily observable to anyone, the attitude of veneration by no means coincides with the geographical distribution of the species. It has a very much narrower provenience.

2. Even though it can be stated as a generalization that this attitude is common to many peoples, it would be incorrect to maintain that we have here anything like a uniform concept. Not only does veneration differ in degree, but in point of uniqueness,

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<sup>638</sup> That this has actually occurred is not to be doubted but it must be kept in mind that anthropomorphic traits have also been attributed to many other animals. For explicit statements regarding the anthropomorphization of the bear, see e.g., Kohl, pp. 408-9; Copway, p. 30 (Ojibway); Schultz, p. 106 (Blackfoot); Skinner (1) p. 76 (E. Cree); Krause, p. 181 (Tlingit); Bogoras, p. 325 (Chukchi, Lamut, Yukaghir); Sternberg (1), p. 248; Von Schrenck, p. 696; Hawes, p. 168 (Gilyak). The last, e.g., writes, "The natives are fully aware of the Ch'uffs' (bears) cunning and regard him almost as a Gilyak, certainly as a competitor, and love to tell stories of his knowing ways. They describe how he will go a-fishing, by preference at night, but if by day, he will stand with his right paw held close to his heart lest the sun should cast a shadow on the water and frighten the fish; how he will get up on his hind legs to fight and parry a spear-thrust, or shield his heart from a shot with his paw."

<sup>639</sup> This type of explanation for bear veneration is illustrated for specific peoples by such remarks as the following: "There is no doubt that this wild beast inspires more of the feeling which prompts worship than the inanimate forces of nature and the Ainu may be distinguished as bear-worshippers;" "... the bear, which is the strongest, fiercest, and most courageous animal known to them, has probably in all ages inspired them with veneration." Bird, II, p. 99. Cf. Von Schrenck, p. 696.

as compared with the attitudes manifested toward other animals. Certainly among the Gilyak and Ainu, for example, there is no other animal which is more highly revered, but even in these groups it is not the only animal toward which a venerative attitude is held.<sup>640</sup> In other northeastern Siberian tribes the attitude toward the bear is probably even less distinctive.<sup>641</sup> In North America, on the other hand, among the Algonkians of the northern and northeastern Woodlands the veneration of the bear is much more unique<sup>642</sup> in character. Such facts are difficult to explain if the qualities exhibited by the bear are the sole stimulus to the development of a venerative attitude.

3. There seems to be no striking correlation between the occurrence or complexity of rites or customs and bear veneration. Even in tribes, for example, which observe no special ceremonies when a bear is killed and eaten, the animal may, nevertheless, be greatly respected or even revered.<sup>643</sup> Or, where very few or simple ceremonies are practiced, the animal may be held in just as great or greater esteem as in tribes where elaborate ceremonies exist.<sup>644</sup> Rites and customs connected with bears thus seem to be less widely spread than the veneration of the animal and we cannot make any satisfactory inference regarding one phenomenon from the presence of the other.

4. When we consider the special form which rites and customs take, the inadequacy of the psychological hypothesis becomes still more apparent. While a few observances connected with the

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<sup>640</sup> See Sternberg's remarks about the narwhal (1), p. 250.

<sup>641</sup> Among the Kamchadal, e.g., Steller, p. 276, equates the whale, bear, wolf, and narwhal as especially venerated animals. For the Koryak the whale may be mentioned, for the Reindeer Chukchi, the wolverene and elk.

<sup>642</sup> For Montagnais-Naskapi, see Chambers, p. 316 and MS notes of F. G. Speck; Wabanaki tribes, field notes, F. G. Speck and A.I.H. Timagami Ojibway, Speck (1), p. 27; Ojibway, Kohl, p. 408; E. Cree, Skinner (1), p. 68; N. Saulteaux, *ibid.*, p. 162, Jes. Rel., LVI, p. 127 ("it passes belief what veneration they have for the Bear").

<sup>643</sup> This is certainly the case among the plains Indians and for the Mongolic tribes of Central Asia. Czaplicka (9), p. 31, writes: "Generally speaking, there is no animal worship, but some animals are venerated. The greatest veneration is shown to the bear, occasionally to the wolf, and of birds, to the eagle, the hawk, and the goose." The Samoyed might be cited as an additional example.

<sup>644</sup> Compare, e.g., the Labrador Algonkians with the Ainu.

animal extend over considerable areas, coinciding with the veneration of the beast, other practices are specifically localized.<sup>645</sup>

Furthermore, as in the case of the venerative attitude, we discover that the practices connected with the bear apply to the treatment of other animals also, in a number of tribes.<sup>646</sup>

#### THE ECONOMIC HYPOTHESIS

Another hypothesis we must consider is the economic interpretation of the beliefs and customs centering around the bear. This theory, in the form of a generalized explanation of religious attitudes and practices connected with animals, has been advanced by some writers on primitive religion. N. W. Thomas, in particular, maintains that the propitiation of animals is in proportion to their usefulness.<sup>647</sup> Is there any validity to this hypothesis as applied in the case of the bear? For the following reasons it has, to my mind, even less to recommend it than the psychological interpretation.

1. The bear is an animal of economic importance over a much wider area than that in which veneration or ritual observances occur. This applies to both continents so that, broadly speaking, the mere fact of usefulness does not in any way seem to imply the existence of correlated beliefs and customs of a magico-religious type.<sup>648</sup>

2. In the regions where the most characteristic beliefs and ceremonies connected with bears do occur, the beast is by no means the most important animal from an economic standpoint. The bear is, indeed, more often than not, clearly superseded in economic value by creatures of greater usefulness. Take, for example, the reindeer (caribou). Whether hunted, as in North America and Eurasia, or domesticated as in the region of reindeer nomadism in the latter continent, it is infinitely more basic to the

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<sup>645</sup> The use of the *nimaban* in Labrador, e.g., as compared with the widespread conciliatory address to the animal and the treatment of the skull.

<sup>646</sup> See the ceremonies of the Asiatic Eskimo, Chukchi, Koryak.

<sup>647</sup> See "The Origin of Concepts relating to animals."

<sup>648</sup> Batchelor (2), however, says the Ainu worship bears (a) because they know of no more powerful or greater animal; (b) because "it is at once both food and clothing." The utilitarian aspect he would evidently consider primary, as he adds that foxes and moles are called *kamui* but are not worshipped "because they are not useful."

economy of these northern forest-tundra peoples than the bear. In northeastern Siberia and on the Northwest Coast of America, the sea mammals take first place, together with halibut and salmon in the latter region. In northeastern America the beaver even rivals the caribou in economic importace.

3. A still more contradictory fact, from the standpoint of the economic hypothesis, is that these animals which transcend the bear in economic value are not by any means universally the focus of special propitiatory ceremonies. The absence of any such rites in connection with the caribou, except in some parts of northeastern Siberia,<sup>649</sup> is a fact which Czaplicka has commented upon.<sup>650</sup> The same thing is true of the beaver. On the other hand, the whale<sup>651</sup> and the salmon<sup>652</sup> are the center of a ceremonial complex in some regions.

#### HISTORICO-GEOGRAPHICAL INTERPRETATION

Those addicted to psychological or economic theories of interpretation err, it seems to me, in two directions. In the first place the geographical distribution of the phenomena in question is not taken into account. In the second place, they fail to stress the chief factor in the determination of the specific attitudes and practices which prevail in any given group, viz., historic tradition or culture. The form which customs connected with bears take, as well as the presence or absence of veneration, is primarily a cultural phenomenon and requires interpretation from a historico-geographical point of view. Consequently, the characteristic attitudes and practices associated with the animal in any tribe may be said to be a function of its historical relationships and not due to any naïve observation of the traits of the species, or necessarily connected with the creature's "usefulness." Neither the psychological nor the economic hypothesis, for example, throw any light whatsoever upon the reason why the Ainu celebrate bear festivals while the Chukchi have very simple ceremonies. When we

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<sup>649</sup> Notably among the Reindeer Chukchi.

<sup>650</sup> (4), p. 495.

<sup>651</sup> In northeastern Siberia and on the North Pacific Coast of America.

<sup>652</sup> On the North Pacific Coast.



observe, however, that the Amur-Gulf of Tartary region is one in which peoples geographically contiguous to the Ainu also hold periodic festivals, whereas the neighbors of the Chukchi practice only simple ceremonies, we have at least a starting point from which to advance to a more intelligible historical interpretation of the customs of the two peoples in question.

Having cut ourselves loose, therefore, from psychological and economic theories of interpretation, we may attack the problem of bear ceremonialism in its broadest intercontinental aspects from the historico-geographical standpoint.

One outstanding geographical fact is apparent in the distribution of the most typical and widespread customs associated with the bear. In the discussion of almost every topic it was found that the items which showed the most marked correspondences and, in some cases, specific resemblances to each other, had practically the same provenience. With the exception of northeastern Siberia and the Northwest Coast of America, they were found to chiefly characterize the northern Boreal hunting peoples of both continents and not those of the arctic littoral to the north or tribes of a more southerly habitat. In particular, the outstanding customs which are associated with the bear throughout this vast region include *the performance of post-mortem rites and the disposal of the skull of the animal in a conventional way, conciliatory addresses, a varied synonymy for the bear usually accompanied by a specific taboo upon the use of the generic term, the belief that the animal sucks its paws for nourishment during hibernation, and the use of thrusting and striking weapons at close quarters in the hunt. On the subjective side the idea seems to be widely prevalent that the bear is under the guidance of some sort of spiritual controller.* The seeking out of the animal in its winter den is of wider provenience, as is an attitude of respect or veneration for the bear.

In North America the northern and northeastern Algonkians exhibit all of these characteristic traits and, as I see it, resemble the peoples of Eurasia more closely than do most of the tribes of western America which exhibit fewer parallels from a quantitative standpoint.

The Plateau tribes do not, for example, perform any rites in connection with the carcass of a bear, although they treat the skull in a manner which is paralleled elsewhere. Their bear songs are conciliatory but do not resemble the Asiatic speeches to the animal as much as do those of the Algonkians; their synonymy is very weak and apparently of much less importance, if not essentially different in character. In respect to the belief in paw sucking, our information is tenuous and it is not possible to speak of their manner of hunting bears with much certainty.

On the North Pacific Coast we do find authentic traces of post-mortem rites but regarding the other, often associated, practices, a doubtful negative must be stated, although inquiry might still supplement the present record. The same situation prevails with respect to Californian data and in the Pueblo region the ceremonies which are performed are so redolent with the ideology of this area that they seem remote from the practices of the north.

In Asia, on the other hand, we find the characteristic series of customs in question appearing in northeastern Siberia, the Amur-Gulf of Tartary region, and western Siberia.<sup>653</sup> In Europe the ancient Finns<sup>654</sup> manifest the bear complex most typically, the Lapps being more aberrant in that their post-mortem treatment of the bear approaches the unique. They bury the bones of the animal and their speeches and songs to the bear, while conciliatory, are not so clearly of an Asiatic pattern. They do have a distinctive synonymy for the bear, nevertheless, and believe the animal sucks its paws during hibernation.

With the exception of the Mackenzie area in North America<sup>655</sup> and Central Siberia in Asia<sup>656</sup> we have, therefore, a fairly continuous distribution of a series of customs exhibiting basic analogies

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<sup>653</sup> The belief in paw sucking is not reported from any people of this region so far as I can discover.

<sup>654</sup> With the exception of the paw sucking notion. While not specifically reported for the Finns the statements made with particular reference to the Lapps may, as we have already pointed out, refer to other north European peoples.

<sup>655</sup> Here we do have some slight indications of a bear cult.

<sup>656</sup> A region which needs investigation not only because the published data are so scanty but because it has been the scene of so many eruptive population movements from central Asia.

and some specific correspondences connected with the same animal, and including in their reach northeastern America on the one hand and northern Europe on the other. Does this fact give us any clue whatsoever to the solution of the fundamental historical question which now confronts us? Do the resemblances in customs and beliefs connected with the bear in Eurasia and North America represent the result of convergent, but historically distinct, developments, or is there any reason to believe that they may have originally sprung from common historical roots? My own inclination is toward the latter interpretation, chiefly for the reason that the peculiar customs we have been investigating have, roughly, the same intercontinental distribution as certain other culture traits which are undoubtedly of considerable antiquity on both continents. Let us briefly review these latter traits before stating our final conclusions with respect to bear ceremonialism.

On the economic side, dependence upon the caribou is the outstanding cultural fact. Referring to North America Wissler writes<sup>657</sup> that "if other phases of culture were ignored, we should take the caribou range as one culture area."<sup>658</sup> He then goes on to point out that this "culture shows some indication of being continuous with the reindeer culture of the Old World. The analogous use of bark for vessels,<sup>659</sup> the bark-covered tipi of Siberia,<sup>660</sup> and the remarkably tipi-like tents of Lapland<sup>661</sup> and Norway may have a common origin. The tendency has been to attribute all of these similarities to the arctic<sup>662</sup> environment. It seems more likely that the distribution of the allied reindeer and caribou alone has

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<sup>657</sup> Boas (8), p. 118.

<sup>658</sup> Cf. Wissler (1), map p. 8. Thompson-Seton, map 8. The range of the Woodland caribou (*Rangifer caribou*, Gmelin) more nearly corresponds with the most typical developments of the bear complex in North America.

<sup>659</sup> "An associate of the birch bark canoe from Nova Scotia to northern Russia," writes Wissler (1), p. 55. Kroeber, however, without reference to distribution or a discussion of the point, cites the bark canoe as an indigenous American trait, (2), p. 3.

<sup>660</sup> Buschan, pp. 320-1, clearly shows the distribution of this type of dwelling in Asia on his map. It is not characteristic of the northeastern Siberian tribes.

<sup>661</sup> The pole foundation of the Lappish tent is quite unique as compared with that of Siberian and American peoples. See Elgström, pp. 157-160; photographs, sketches, 139-142, 147.

<sup>662</sup> More characteristically sub-arctic.

been the chief factor and that, as such, has served as a diffuser rather than a creator of various associated traits. The suggestion is that a culture having once developed around the caribou or reindeer as the case may be, mere expansion and diffusion would tend to carry it along, thus making the animal itself the accidental carrier of the culture. The historical view conceives that the real cause for the various traits being associated lies in the fact that they were at some former time and place so associated. Traits may thus be perpetuated so long as the faunistic or other conditions permit and it may yet turn out that certain paleolithic traits of reindeer hunters in the Old World were still to be found in Canada and Siberia a few hundred years ago."

Another investigator, Hatt, has attempted to depict in more detail an ancient intercontinental culture similar in extent to that suggested by Wissler. Hatt calls it the "*inland culture*" in contrast with the "*coast (Arctic) culture*" which he believes is still older.<sup>663</sup> The former "is found fullest and most unmixed in the culture of the Tungusians," he says, "although its influence is felt from Lapland to Labrador. . . . Its most valuable possession is the snow shoe, which has carried it over the greater part of the arctic." This is the device which enables the hunter to pursue the reindeer or caribou and it is the chase of this animal which "more than anything else furthered the development of the snow shoe."<sup>664</sup> In another place this author emphasizes the intimate relation between moccasins<sup>665</sup> and snowshoes which he believes to have been "evolved together,"<sup>666</sup> the principal types of the former in Eurasia and North America having "sprung from a common prototype which was not a sandal."<sup>667</sup> Hatt also at-

<sup>663</sup> Hatt, pp. 248-9.

<sup>664</sup> P. 249. "The fact that the ski never reached America and that the Old World has only quite primitive forms of the netted snow shoes, while America has highly developed forms, would indicate that the inland culture reached America at an early period. The great variety of forms of the snow shoes and mocassins, and also the diversity of local terms, bear further witness to the considerable age of the inland culture." Cf. Mason, pp. 381-408. The ski type occurs from northern Europe to the Amur. Netted shoes are reported from the Koryak, Chukchi, Yakut, and Tungus.

<sup>665</sup> See p. 151 for the author's definition of moccasins.

<sup>666</sup> *Ibid.*, p. 243.

<sup>667</sup> *Ibid.*, p. 239.

tributes a "clothing complex"<sup>668</sup> to this inland culture, a characteristic technique of skin dressing,<sup>669</sup> cradle boards or carrying cradles for infants,<sup>670</sup> the birch bark canoe, and the conical lodge.<sup>671</sup> To these traits may, perhaps, be added the tambourine or skin hand drum as an essential item of a shaman's equipment,<sup>672</sup> scapulimantia,<sup>673</sup> the "soul kidnapping theory" of disease,<sup>674</sup> game drives,<sup>675</sup> the earth diver *motif* in folklore,<sup>676</sup> hunting territories,<sup>677</sup> bloody animal sacrifices.<sup>678</sup>

<sup>668</sup> *Ibid.*, pp. 247-8. Wissler (1), p. 63, remarks the association of tailored clothing with the reindeer-caribou area of Eurasia and America.

<sup>669</sup> Hatt, p. 249. Including the use of double-handled scrapers ("originally a long bone"), smoking of the skin, and "perhaps even the use of fat as a tanning substance."

<sup>670</sup> Cf. Mason, pp. 495-535. A bag is the corresponding device among the Labrador Indians.

<sup>671</sup> *Ibid.*

<sup>672</sup> Lowie (5), p. 180, calls attention to the "arbitrary association of shamanistic activity with a tambourine, which links some of our eastern Indians not only with Siberia but with Lapland." Cf. Kroeber (2), p. 18.

<sup>673</sup> Lowie, *op. cit.*, p. 173; Andree, Speck (9).

<sup>674</sup> See Lowie, *op. cit.*, pp. 176-80, who suggests that this notion may be a heritage from Paleolithic man.

<sup>675</sup> For Reindeer (caribou), deer, and buffalo. See Lowie (4) who writes (p. 282), "Altogether, I cannot escape the impression that we are here face to face with a cultural parallel which implies a single center of origin, that the impounding of game in the manner described evolved possibly in some Siberian tribe and thence spread to the east and the west. It is, indeed, a far cry from the Samoyed (Lowie has previously called attention to its use by the Lapps) to the nearest North American aborigines, but the resemblance is too great and the features too complex to permit the assumption of independent invention. Perhaps further inquiry will serve to discover traces of the custom in Western Siberia." On the basis of information furnished me by Mr. H. U. Hall (cf. Middendorff, pp. 1369, 1380.) the distribution of this method of hunting reindeer in Siberia can be advanced to the Yenisei River where the Samoyed, of the Big Low Tundra, employed it. Cf. Wissler (2), pp. 21-2, where the suggestion is made that the impounding of buffalo by the Plains Tribes may have been derived from northern peoples of Eastern Woodland culture. It was also characteristic of the Athabascans, see Franklin, p. 218, Richardson, I, p. 393; II, p. 26; Emmons, p. 70.

<sup>676</sup> Lowie (5), p. 180, refers to the "remarkable recurrence among the Chukchi, Yukaghir, Mongolic, Turkic, and Finnic tribes of the widespread North American "earth diver" motive viz., the diving into water for mud from which the earth is created." The Koryak may be added (Jochelson [3]) p. 35, and see Abercromby, p. 134 ([Folklore Journal. 1889]) for the form of the tale among the Vogul. This tale has not been reported east of Hudson's Bay in North America.

<sup>677</sup> Speck (4). For references to the occurrence of this feature in the Mackenzie

Other intercontinental traits (moose-hair embroidery,<sup>679</sup> crooked knife<sup>680</sup>) which link northeastern North America with Asia might be mentioned, but these are less germane to our argument because their distribution does not extend beyond northeastern Siberia and therefore does not approximate so closely the distribution of customs associated with the bear as the features previously referred to. Probably they belong to a more recent stratum of intercontinental culture history, possibly a repercussion of American culture upon that of Asia.

Still another facet of the Asiatic-American problem concerns the relation of the culture of western and northwestern America and the North Pacific Coast area in particular,<sup>681</sup> to Asia. Some cultural features (semi-subterranean houses,<sup>682</sup> coiled basketry,<sup>683</sup> pottery,<sup>684</sup> mummification<sup>685</sup>) which occur in Asia and western or northwestern America skirt the north Pacific coast proper,

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area and in northwestern America, see note, p. 99. To these may be added Harmon, pp. 330-1, 255; Morice (4), p. 172. For data regarding Siberian peoples see Hieckisch, pp. 81-2, and the reference in Morice (*op. cit.*) to the remarks of John Ledyard regarding the Tungus; Erman, II, p. 328; Castrén (1), II, p. 191.

<sup>679</sup> Dogs in America and northeast Asia, reindeer and horses in Asia. Consult the comparative data assembled by Jochelson (3), p. 90 *seq.*; Handbook, II, p. 403, and Lowie's remarks (5), p. 173. The Lapps should be included in the distribution of these practices. Pinkerton (Regnard), p. 179; (Leems.) p. 463; Scheffer, pp. 111-2.

<sup>679</sup> Speck (3). Cf. Boas (3), p. 534.

<sup>680</sup> Wissler (3), map.

<sup>681</sup> Recently discussed by Kroeber (2) who writes (pp. 7-8): "It is the thesis of the following pages to demonstrate that essentially northwest coast culture shares with American culture only basic universal elements presumably derived from Asia; that it lacks regularly the generic American elements that were developed on American soil and became diffused, and that what is specific in it is either a direct outgrowth on the spot from the relatively undifferentiated primitive American culture or the result of later Old World influences."

<sup>682</sup> Kroeber (2), p. 13, who considers this type of dwelling intrusive from Asia. Cf. Wissler (1) p. 112, who hesitates to draw any historical deductions. Waterman (p. 43) thinks an Asiatic derivation plausible. See also Jochelson (1) who in his fundamental compilation of the data argues for a historical connection between the New and Old World houses of this type.

<sup>683</sup> See Wissler (1), p. 53 (map), and Kroeber (2), p. 14.

<sup>684</sup> Wissler (1), p. 68 (map); Sapir (2).

<sup>685</sup> See MacLeod who maintains that it is a very recent development, pp. 146-7.

whereas others (sinew-backed bow,<sup>686</sup> defensive armor,<sup>687</sup> the magic flight tale<sup>688</sup> and other mythological correspondences,<sup>689</sup> netting tools,<sup>690</sup> the unsought type of vision experience,<sup>691</sup> a vigesimal system of numeration,<sup>692</sup> cremation<sup>693</sup>) include the latter in their scope. The chronological relations of these various traits present a most intricate problem, as does their probable derivation. It has become well established during the past two decades, however, primarily through the investigations initiated by Boas, that the solution of these questions is not to be sought on the assumption that northwestern America has been the passive recipient of cultural emanations from Asia. Very ancient movements of population as well as the diffusion of traits in the opposite direction have exerted a profound influence upon the culture history of northeastern Siberia, a region which possesses many basic features in common with northwestern America.<sup>694</sup>

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<sup>686</sup> Wissler (4), map, p. 132, and pp. 131-3, who argues for its Asiatic origin and latter diffusion into America. Cf. Kroeber (2), p. 6. The latter calls attention to the fact (p. 18) that it is "uncharacteristic of most of the northwest coast."

<sup>687</sup> Wissler (1), p. 131; Kroeber, *op. cit.*, p. 6. References to the earlier detailed studies of Hough and Laufer are cited by Wissler.

<sup>688</sup> Kroeber, *op. cit.*, p. 6, and (3), map, p. 201.

<sup>689</sup> Limited more exclusively to northwestern America and northeastern Asia. Dixon (1), summing up this evidence, writes: "Here the degree of similarity is most striking, the myths . . . forming practically one great group . . . which are allied not by form alone, but by actual content of the myths themselves." Cf. the fundamental studies of Bogoras (1) and Jochelson (5),

<sup>690</sup> MS, A I.H.

<sup>691</sup> Lowie (5), pp. 180-1. Cf. Benedict, pp. 26-27.

<sup>692</sup> Thomas (p. 925) writes, "While the vigesimal system has not been found in use east of the Rocky Mountains, except in Greenland and among some tribes in the northwestern cis-montane portion of British Columbia, it prevailed to a considerable extent on the Pacific slope from Mexico northward to the Arctic Ocean, and it may also be added that it has been found among the eastern tribes of Siberia and was the method adopted by the Ainu." Cf. Laufer (4). Dixon and Kroeber (4).

<sup>693</sup> Mac Leod.

<sup>694</sup> Boas (3), p. 534, writes that the "fundamental features of the material culture of the fishing tribes of the coast of northeastern Asia, of northwestern America and the Arctic coast of America are so much alike that the assumption of an old unity of this culture seems justifiable, particularly since the beliefs and customs of this large continuous area show many similarities" and furthermore, "a consideration of the distribution, and the characteristics of languages and human types in America and Asia have led me to formulate the theory that the so-called Paleo-Asiatic tribes

With reference to our own problem it may be pointed out that, with a few exceptions,<sup>695</sup> the intercontinental traits which embrace both eastern North America and western Eurasia in their distribution, are features conspicuously absent on the North Pacific coast. The chronological relation of these more widely distributed features to the Northwest Coast culture is beyond the scope of our investigation, but Kroeber's study and our own superficial survey would indicate that they belong to quite separate culture strata. If these Boreal traits, in their original form, do represent features native to an ancient Asiatic culture, later disseminated in America by migrant caribou hunters (Wissler), they may be much older than the traits common to western America and Asia or those which link the North Pacific Coast area proper with northeastern Siberia. On the other hand, it is conceivable that they may have skirted the North Pacific Coast in the course of their dissemination from the Old World, because the littoral population of this part of America was already well established and had even developed some of its unique cultural features. Consequently, it offered an infertile field for the diffusion of such traits as the conical lodge, tailored clothing, moccasins, etc., but a few other traits were adopted.

My own conclusion with respect to the history of the chief categories of customs connected with the bear is derived from a demonstration that these observances follow the same intercontinental distribution, on the whole, as the typically Boreal traits referred to. It seems probable to my mind, therefore, that in point of origin they belong to the same culture stratum. In short, I think it more than likely that a bear cult was one of the characteristic features of an ancient Boreal culture, Old World in origin and closely associated with the pursuit of the reindeer.<sup>696</sup>

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of Siberia must be considered as an offshoot of the American race, which may have migrated back to the Old World after the retreat of the arctic glaciers." Cf. Boas (9), Laufer (3), p. 267; for data regarding linguistic similarities see Jochelson (6); Sternberg (5); Chamberlain (1).

<sup>695</sup> Such as netted snow shoes, the tambourine, carrying cradles for infants.

<sup>696</sup> It is not impossible that it may even have been derived from some Paleolithic people. However this may be, Bächler has interpreted the peculiar disposal of cave bear skulls and long bones in stone cists as evidence of an ancient bear cult at Drachen-



Later, it became intercontinental in its scope, extending from Labrador to Lapland. As this culture spread, due perhaps to the necessity of following the migrations of the animal which was the chief source of subsistence, its original traits, including a veneration of the bear and simple rites connected with hunting the animal, became more and more widely diffused and radically modified in the course of time. This hypothesis would account, it seems to me, for the ostensible differences in the customs described, as well as for the peculiar underlying trends and similarities observed. The same interpretation applies equally well to the other features of this Boreal culture complex, a point elaborated by Hatt in his study of moccasins. In certain instances I called attention to what seemed to be indications of this process of modification, differentiation, and assimilation. The bear rites of the central Algonkians were tinged with Plains influence, the Lapp bear ceremonies clearly showed their European contacts and, in the case of the Gilyak, there was an integration of the bear customs with their social organization in a fashion nowhere else to be observed. We called attention also to the similarities between the bear rites of the northeastern Siberian tribes and those performed after killing other animals. Since we find the whale and

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loch. The animals were evidently eaten as the percentage of young individuals, their continuous occurrence in the deposits and the non-anatomical position of the bone remains, makes it extremely improbable that the animals died a natural death. Tools made of bear fibulae have also been found. At least one interesting analogy to the practices of living peoples is in evidence. Some of the skulls show the forehead crushed in and Bachler thinks they were probably killed by this blow. Abel has also made discoveries of what he believes to be a Paleolithic bear cult and the sculptured figure of a crude bear in clay (with a skull where the head should be) in the cavern of Montespan may perhaps be adduced as similar evidence. The early age of these discoveries is very impressive, Drachenloch, for example, being occupied in the Riss-Wurm period. One may draw one's own conclusions from these facts but at least it is clear that so far as northern Eurasia and North America are concerned, the *Ursidae* were not only one of the principal groups of mammals known to man from the earliest period of human occupation in both continents, but in contradistinction to such other animals as the mammoth and rhinoceros, they were consecutively his contemporaries from that early period until today. Even the reindeer although long associated with men was not known so early as the bear. Once such a cult were started it may be argued that its conservation by northern hunters in the marginal areas of the northern hemisphere is a possibility worth consideration.

salmon ceremonially treated on the Northwest Coast of America, the problem of bear ceremonialism in these two regions needs further analysis. It may, perhaps, represent an extension of such ceremonies to the bear, or vice versa, particularly in view of the fact that we do not know the connections between the ancient Boreal culture and the cultural developments peculiar to north-west America and northeast Asia. We also have pointed out that the elaborate festivals of the Amur-Gulf of Tartary region are relatively recent in time, having probably grown up out of the simpler rites practiced. This fact basically connects these tribes with other peoples who observe such customs.

Our investigation has, then, accomplished two major aims: (1) It has brought to a focus the available data on a cult connected with a single animal, exhibiting the peculiarities in the customs and beliefs of many different peoples and widely separated regions. (2) It has enabled us to advance an historical hypothesis to account for intercontinental analogies and differences.

In accomplishing the first aim, many gaps in the data have been revealed which field investigation may even yet be able to close up. Minor problems of diffusion have also been touched upon, but these, too, need to be supplemented by information which only the specialist in a particular region can fully command. The relation of the rites and customs connected with other animals to those centering around the bear is also of interest and will throw light, perhaps, on the history of the latter series of customs in some regions. Finally, it is our hope that an intercontinental perspective in approaching certain problems in American culture history will receive increasing consideration and that more intensive regional investigations of customs connected with the bear, as well as detailed surveys of other widely distributed Boreal traits, will be undertaken. The historical interpretation which we have essayed may then receive more final confirmation or rejection.

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- Bull. A.M.—Bulletin of American Museum of Natural History.  
 A.P.A.M.—Anthropological Papers of the American Museum of Natural History.  
 B.A.A.S.—British Association for the Advancement of Science. Reports of Annual Meetings.  
 B.B.A.E.—Bulletins-Bureau of American Ethnology, Washington D.C.  
 H.E.—Hastings' Encyclopaedia of Religion and Ethics.  
 Indian Notes—Indian Notes and Monographs—Museum of the American Indian, Heye Foundation, New York.  
 J.A.F.L.—Journal of American Folk Lore.  
 J.A.I.—Journal of the Royal Anthropological Institute of Great Britain and Ireland.  
 Jesup—Jesup North Pacific Expedition.  
 N.M.—Reports, U.S. National Museum. Washington, D.C.  
 R.B.A.E.—Reports, Bureau of American Ethnology, Washington, D.C.  
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## HAWAIIAN CUSTOMS AND BELIEFS RELATING TO SICKNESS AND DEATH

BY LAURA C. GREEN *and* MARTHA WARREN BECKWITH

### BURIAL CUSTOMS

OLD CUSTOMS concerned with the preparation of the body for burial are remembered and to some extent observed today<sup>1</sup> in Hawaii. When anyone died in a house, no sound of wailing was made until the body was cleaned and dressed, for the spirit of the person still lingering in the house might be startled by the noise of lamentation and flee; moreover, loud wailing was a signal for relatives and intimate friends to pour into the house, and the body must be prepared before visitors arrived. Messengers were, however, sent immediately to relatives and close friends to announce the death.

Relatives attended to the washing and dressing of the body.<sup>2</sup> Salt water was used for washing, for besides its power of purification and preservation, salt water was the "*wai kala*" or "water of forgiveness," according to the ancient Hawaiians.<sup>3</sup> A piece of

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<sup>1</sup> For descriptions of old burial customs see Malo, *Hawaiian Antiquities*, 131-144; Kamaka in Fornander Collection of *Hawaiian Antiquities and Folk-lore*, 5:570-576; Ellis, *Narrative of a Tour through Hawaii* (reprint from the edition of 1837, Honolulu, 1917), 269-272.

<sup>2</sup> Ellis, p. 270, states positively that the Hawaiians did not wash their dead as did other South Sea Islanders.

<sup>3</sup> The Hawaiian scholars Kepelino and Kamakau say, in Fornander Collection, 6:273: "The ocean (*ka moana nui a Kane*) surrounded the earth. It was made salt by Kane so that its waters should not stink, and to keep it thus in a healthy and uninfested state is the special occupation of Kane. In imitation of Kane, the priests prepare waters of purification, prayer and sanctification (holy water) '*wai hui kala*' '*wai lupalupa*,' and '*Ke Kai olena*,' wherewith to drive away demons and diseases; it was called '*Ka wai kapu a Kane*.'" Women purified themselves after child-birth by bathing naked in the sea and sprinkling their *pa'u*, or skirt, with sea water. If they were too far from the sea, they took a calabash of salted water, and at high noon offered a prayer of blessing and poured it over their bodies. Doses of medicine (taken by fives) were followed by a sea bath. In the Pèle legend, Lohiau, after being brought back to life from the dead, is bathed five times in the sea for purification.

salt was sometimes placed in the navel "to keep the body dry and act as a preservative." In case of a chief, the root of the *ti* plant was grated and rubbed thoroughly into all parts of the body, even into the head and, by means of a swab, into the mouth and nostrils, and this acted as a preservative.<sup>4</sup> To keep the fluid from exuding to pollute the house, a diaper, or *malo*, of bark cloth stuffed with silk, called *pulu* from the stalk of a species of tree-fern, was tied about the body and fastened securely with skewers made of small sticks. The saying "*nalo no hoi na wahi huna*," translated "to cover the nakedness," refers to the fastening of a double *malo* about the loins of the dead before burial.<sup>5</sup> This office remains today a sacred charge entrusted to the son or daughter who has been closest to the parent in life, "as if to say, 'This is the last time we clothe you—you are to have the best there is.' " The lower part of the body was wrapped in bark cloth so as to form a *pa'u* or skirt, and the upper in a *kikepa* consisting of two strips of bark cloth wrapped about the shoulder, back and chest to form a V and fastened at each side with pebbles through which a hole had been drilled or with a noose. The best *kihei*, that is, a loose cape of bark cloth worn by men knotted over one shoulder, might be wrapped about the shoulders. Thus clothed, the body was laid upon a bier made of logs of wood placed upon the floor and covered with strips of banana trunk.

The body was often kept for two or three days before burial.<sup>6</sup> Says Miss Green,

The ancient Hawaiians seemed to labor under the fear of burying a person before death had actually taken place. A hand was placed about the region of the heart from time to time while the body was still in the house to discover if life was really extinct.

At intervals, from the time of death until after the burial, relatives and friends kept up a wailing cry as a testimony of respect to the dead. This custom is still in use today. It consists of an impromptu chant in words adapted to the individual case, broken by the wailing repetition of the syllable a-a-a. When a relative

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<sup>4</sup> The *ti* is a tumeric (*cordyline terminalis*). See Fornander Collection, 5:668, for the various uses to which it is put in household life.

<sup>5</sup> Haleole's Romance of Laieikawai, chap. 1.

<sup>6</sup> Ellis makes the same observation during his tour of Hawaii.



sees someone coming to the house of mourning who has been associated with the dead, he chants a lament expressing the connection of the new arrival with the dead. Miss Green instances an occasion when she visited the bereaved mother of one of her sewing pupils. The mother

lifted up her voice to proclaim the coming of Rose's teacher, repeating incidents of our relationship.

Such a lament describing the life of the deceased is called *uwe-helu*, literally, "mournful recital." I have heard Hawaiian wailing three times during recent years, once in the forest of Puna when an automobile carrying a child's coffin for burial passed an old Hawaiian on the road to Kalapana; a second time in Kapoho when an aged Hawaiian *kahuna* woman (a sorceress) from Hilo was approaching the house of one of her friends to pay him a visit; and a third time at the undertaker's establishment in Honolulu at night when the bodies of two petty chiefs lying surrounded by upright *kahili* sticks were visited from time to time by relatives who wailed over them. In the *pai auma* form of mourning, the fingers were locked back of the neck and the body swayed back and forth.<sup>7</sup> In old days bodily injury was also done, such as knocking out the teeth, cutting off one side of the hair while leaving the other, tattooing the tongue, or scarring the body.<sup>8</sup> This form of mourning was called *manewanewa* or *hoomaiinoi ana*.

A feast is prepared by the family at the time of death, to which the mourners can go as they desire before the burial, but there is no ritual connected with this feast.

Clothing and other articles are still buried with the dead. Miss Green remembers as a child

how strange it seemed to me in attending a Hawaiian burial to see them placing bed-quilts and articles of clothing in the grave.

It may be that in some instances this is done because the sight of these things brings sorrowful memories, but other considera-

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<sup>7</sup> In *Laielikawai*, chap. 23, where the words of the wife's lament are recorded, the chiefess is represented as wailing with one hand at the back of her neck and the other across her forehead. See, also, Ellis, 135.

<sup>8</sup> Ellis, 132-137.

tions are involved. If the spirit sees his old things about he is likely to come back to them and bring sickness into the household. Also, there seems to be an idea that he really needs them in the grave, for one old Hawaiian woman who had been laid out with all suitable clothing, even to her glasses, but whose feet were too swollen to get on her shoes, is said to have come back as a ghost to her daughter complaining that her feet were cold.<sup>9</sup>

When the time came to carry the body out of the house for burial, it was in old days disposed for carriage in one of three ways: it might be wrapped in a fine bark cloth, rolled in a mat and bound with cords; it might be deposited, wrapped in bark cloth, in a canoe with the knees bent to fit into the body of the canoe, or with the ends of the canoe knocked out to receive the body at full length, a flat board being added to fill out the length; or the knees might be drawn up to the chest with the hands doubled into fists against the cheeks and the body placed in a large covered *umeke* or calabash hollowed out of some native hard wood like the *koa* tree (*acacia koa*), *kou* (*cordia subcordata*), *kamani* (*calophyllum inophyllum*), or *milo* (*hibiscus populneus*). A net, called *koko*, made of *olona* fibre (*touchardia latifolia*) was spread upon the floor and upon it was placed the body in its receptacle, together with various valuable possessions of the deceased. The net was then drawn together and slung upon a pole for carriage, but if the net was not strong enough to hold the body, the whole was first rolled in a coarse mat and tied with *olona* cords or cords of *hau* fibre (*paritium tiliaceum*) or of pandanus root, or with *koali* withes, a species of convolvulus.

On the first anniversary after a death, Hawaiians still observe a feast for the dead, and they may do so on each year if they so desire. Mrs. Pukui describes one such feast which she attended. A roast pig was served. The mother first prayed over the feast, saying, "The substance is ours and the shadow of it is thine." She then cut off the tips of the ears of the pig, the end of its nose, a bit of each hoof, and the tip of the tail, and took a portion of the vegetable food (*poi* made of *taro* root) and of the liquor served at the feast and carried all to the grave of her daughter nearby,

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See Fornander Collection, 5:574.

where it was left for a day and a night. A hut may be built over the grave. Sometimes clothing and even toys are carried and placed in such huts on memorial occasions.

The burial was in old days always held at night and was attended by men alone. Relatives (two, four, or six in number according to the weight of the corpse) acted as bearers. Those who lifted the body would "*kahoa*" or "intercede" with it in some such words as "*Ke hele ala oe, e hoomaha oe!*" that is, "You are departing, rest yourself, do not make yourself a burden!" Should they find the body very heavy to lift, they would inquire of the dead who was holding him back, by naming each relative in turn until at some name the body grew lighter.<sup>11</sup>

The rite of *pi kai* or "sprinkling with salt water" must be performed upon all the bearers and those who are going to the grave. This purification ceremony is also performed all about the house and yard in order "to drive out bad spirits from the house after a death and keep the good." A calabash of water containing salt and a bit of *olena* root or of *mauuakiaki* grass is used for this purpose. This sprinkling of the house insures the return of the spirit in a clean state; without such a purifying rite it might return in anger and cause trouble in the house. Anyone attending a burial should also be sprinkled with salt water lest the spirit of the dead follow him home and do him mischief. Another means of keeping away wrathful spirits is to plant before the door a species of caladium called *ape*. Some persons in order to drive away evil spirits and keep them out, place under their bed-mats the leaves of the *ti* plant, of the *ape*, and of a certain banana called "*lau-pala o ka maia lele*," that is, "yellow-leaf of the *lele* (flying) banana."

The customary place of interment in old days was a cave in which the body was deposited.<sup>12</sup> Often the mats were there opened, a pillow made of braided pandanus leaves stuffed hard with

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<sup>10</sup> In Fornander's version of "Hiku and Kawelu," when the mourning is over for the dead chiefess, the men go to the mountains after wood to build a house (*hale*) over her grave.

<sup>11</sup> *Ibid.*, 15:572.

<sup>12</sup> Ellis, 106.

shredded leaves was placed under the head, and food left to supply the wants of the dead, should the dead revive. In the cave, the last ceremony was performed by a near relative, who circled the body with twigs of burning sandalwood to purify the air of the cavern. Before leaving the cave, the *ohana*, including the immediate family, relatives, and connections by marriage, chanted the following song:

*Aloha na hale o maua i makamaka ole!*  
*Ka alanui hele mauka o Huliwale.*  
*E huli ae ana au i makana ia oe, a-a-a*  
*Aloha wale, e-, kuu, a-a-a!*

Grief for our home without our friend!  
 The road that leads to the mountain Gainless-Search.  
 I am seeking a gift for you, alas!  
 Boundless love, O (name of the dead), between us, alas!

In this song, the word "Huliwale" refers to the name of an unknown mountain, which is played upon in the words of the next two lines.

In case of very high chiefs, called "*puholoholo*," or of hairless chiefs, called "*olohe*," a different procedure was followed.<sup>13</sup> When it was certain that the spirit had entirely left the body and would not return, a shallow pit was dug, large enough to hold the corpse and lined with the leaves of *amau* or *hapuu* ferns or of the *ti* or *banana* plant. The body was placed within and carefully covered with leaves, and over the whole, earth was sprinkled to a depth of from six to twelve inches. A huge bonfire was then kindled over the spot and kept burning for about twelve hours, when it was allowed to cool and the earth removed. The flesh was then easily separable from the bones. The flesh and entrails were deposited in one calabash, the bones in another and two men carried both calabashes to a secret cave.

One of these men was to act as *kahu* or "keeper" for the cave, the other was destined as the *moe puu* (that is, "sleeping together,") sacrifice whose blood was useful "to act as a barrier against evil which might touch the chief's body." The *kahu* stood without the cave while the other went in and deposited the bones. As he

<sup>13</sup> Male, 141-143.

crawled out he was despatched with a blow. Sometimes both the bearers were despatched; often a number of retainers volunteered to die with their chief. Generally a lot was cast among the retainers by the relatives of the chief, and none but they knew who was destined for the sacrifice. The secret cave might be approached only by a rope over a cliff and, when the bearer was ascending, the rope might be cut at the top and his body be dashed upon the rocks below. So would the secret of the cave die with him.

The reason for this secrecy in depositing the bones of a chief was because of their value for making lucky arrows for rat-shooting or hooks for fishing. When using such a hook a fisherman would cry, "*E—, paa mai ka ia a kaula!*" that is, ". O . . (calling the chief by name), hold fast to our fish!" A commoner's bones had not this value, and hence were seldom disturbed; there was not, therefore, the same reason for secrecy, although the bones of one who had been a successful fisherman were considered lucky. For the bones of a chief to fall into the hands of an enemy for this purpose was regarded as an insult to the family honor; hence the precaution taken to conceal the place of their burial.

A single retainer acted as keeper, or *kahu*, for the burial cave, and it was his duty to sweep it from time to time and air the bark cloth and feather garments which were buried with the chief. Sometimes the home of the keeper was erected over the opening to the cave. If he had a trusty child or grandchild, the charge was passed on to that child; otherwise the secret died with its keeper. An old Hawaiian lady from Kona, Hawaii, is still living as the *kahu* of a very high chiefess of Olaa named Ke-alii-o-ka-lani, that is, "The-chief from-the-heavens," who died many years ago. The old keeper has charge of the burial cave of her late mistress, where are laid also the bodies of her immediate relatives together with all their belongings in the shape of clothing, utensils, and ornaments of Hawaiian manufacture. Many such hidden caves exist today on Hawaii. A friend was once riding with her father across the arid lava plains of northern Hawaii, when they saw at a distance a man shaking out pieces of bark cloth and feather cloaks; but when they arrived at the spot he had completely

vanished with all his treasures. At another time they paid a keeper to take them into the burial cave of some petty chief, and when their guide's horse fell, inflicting a slight injury, the man ascribed the accident to the broken taboo. My cousin once brought home a skull from a cave in the Wailuku valley on Maui, but his native guide reported the incident and he was requested by the king at that time to replace the relic. A famous anthropologist who visited the islands in 1914, was unable to obtain bones for a museum collection in his own country so reluctant were the Hawaiians of such sacrilege, although heaps of bones often lie exposed by the shifting sands over the sites of ancient battles. When Mr. Parker asked Kanaina, father of King Lunalilo, where his wife was buried, he replied, "Where no man can find her!" He would not trust even the missionary with his secret.

The following story, told by Mrs. Pukui in Hawaiian, and translated by Miss Green, will illustrate the devices sometimes resorted to by trusted retainers to preserve the bones of their chiefs inviolate from insult:

#### KA MOOLELO E PILI ANA I NA IWI I HUNA IA

*He kaa kahiki loa keia, no kekahi kahu i aloha nui i kona haku alii.*

*I ka wa i haalele mai ai ke alii i keia ola honua ana, ua noonoo nui ke kahu i kahi e hoonaloa ai i kona mau iwi. He nui na poi i hakilo i kana hele ana, i ike ai lakou i kana lua pao e wae ai, a no keia kumu, i malama loa ai oia i na iwi, o lilo i ka poe hana makau lawaia.*

*I kekahi la, hana oia i ahaaina nui, a kono akula i na hoaloha, hoa lau-na, a me na ohana, e hele mai e paina pu mea.*

*A i ko lakou maona ana huli mai la kekahi o lakou i ke kahu o ke alii, a ninau maila, "Ea! ahea hoi oe e hoonaloa i na iwi o Kalani?"*

*Pane mai la kela, "Ua nalo kuu haku!" Mahea hoi i nalo ai, oiai aohe ou hele iki i kahi o na ana?" i ninau mai ai kekahi. "Ua nalo i na lua pao he nui," wahi ana, "i kahi e loa hou ole ai i na lima o kanaka."*

*Kahaha anei na kanaka i keia mau olelo, a hoomaka maila e nieniele pono, "Aia ihea keia mau lua he nui?"*

*"O oukou no!" A no ko lakou niele loa, hoike aku nei oia i na mea i hana ia, eia.*

*Ua hoomakaukau oia i na mea ai ono o ke kai, a me ko uka pu, alaila kuikui ia eia aeae na iwi o kona haku, a hoohui ia iloko a ka poi. A pau kana hana i keia, kono aku oia i na kanaka e paina pu me ia, i lilo ai lakou i lua pao no ke alii ana i aloha nui ai!*

*Nalo hoi ke alii-nalo loa!*

## THE STORY OF THE HIDDEN BONES

A tale of very ancient times is this, relating to a certain *kahu*, or trusted servant, who was devoted to his lord the chief.

When the chief departed from this earthly life, much thought was bestowed by the *kahu* upon the question of the disposition of his master's bones. Many persons narrowly watched his comings and goings that they might detect what hidden cavern he would choose and for this reason he guarded the bones carefully lest they be taken to make fish-hooks.

On a certain day he prepared a great feast and invited friends, neighbors and relatives to come and partake with him.

After their hunger was appeased one of the party turned to the *kahu* and asked, "Say! when are you going to hide the bones of the heavenly one?"

"My master is hidden already!" he responded. "Where is he hidden, since you have not even been to the caves?" inquired one.

"They are concealed in many burial caves," he replied, "in places where they will never be found by the hand of man."

The men were much astonished by these words and immediately put the question, "Where are these many caves?"

"You are the caves," (he replied). After repeated questioning on their part, he showed them what had taken place.

He had made ample provision of sea delicacies (for the feast) and also of rarities from the mountain; then he had pounded the bones of the chief into a fine dust and mixed it thoroughly with the *poi* or pounded *taro*-root (served with the feast). After everything was arranged, he had invited these guests to eat with him in order that they might become the secret caverns for the bones of the chief whom he so loved!

Hidden was the *alii*—safely hidden!

Although disposal in burial caves was the most common form of burial in ancient times,<sup>14</sup> there were particular cases in which other forms were practised. In olden times, those who wished the spirit of the deceased to follow the sun-god, built a *pu-o-a* or high platform of sticks and stones upon which the corpse was laid for a day so that the sun might strike the body and cause the spirit to follow the sun. Afterwards the corpse might be concealed in a cave. These *pu-o-a* were stationary on the hills probably near the spot where the dead were finally laid, and were used as the family needed them. Some time ago a large number of bones were dis-

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<sup>14</sup> According to Ellis, burial in the earth in holes dug round like the holes made for banana planting, or in holes dug under a house, was also a very common form of burial in ancient times.

covered within the grounds of Kapiolani park, and the Hawaiians say that a large *pu-o-a* was once located there.<sup>15</sup>

The highest honor of all was conferred upon those dead whose bones were cast into the crater of Kilauea to be with Pélé. Even to have their bones placed in fissures near the volcano was considered fortunate. The souls of those whose bones are cast into the crater are said to live with Pélé in happiness.<sup>16</sup>

The description of such a burial was given to Miss Green two years ago by an intelligent Hawaiian woman over sixty years of age, who recalled an incident of her childhood life in Hilo where she was born and brought up. When she was ten or eleven years old her adopted father, (*makua-kane-hanai*), then an elderly man, said to her, "We are going up to the crater to deposit bones of your ancestors." The two were accompanied by an old *kahuna*, or priest. When they reached the pit, a red handkerchief was spread near the edge and upon it was placed an *umeke*, or calabash, containing the bones. No mention was made of offerings, but probably these also were placed upon it. The three worshippers sat a little way back of the improvised table facing the pit, the girl sitting between the two men. Then the two men commenced to chant, calling upon Pélé to receive the sacred bones. Gradually the lava rose in the pit until at length it reached the top, and then subsiding, took with it the calabash, cloth and all. Instead of sinking immediately the calabash circled the pit, while at various points detonations were to be heard as if the gods or the spirits of the dead who inhabited Halemaumau were saluting the arriving company. After encircling the crater, the calabash sunk. Then the two men caught hold of the girl by the arms, telling her that soon would appear the visible forms of the dead and she must not leap into the pit after them in her excitement. They continued chanting, and sure enough, there in the lava appeared the shapes

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<sup>15</sup> It would seem, therefore, that the body might remain upon these scaffolds or be interred near them. In the legend of Eleio (Fornander Collection, 4:484) the dead body of the wife is placed *within* the *pu-o-a*, which is described as a "house of poles in shape of a pyramid." Nihooolaki, also, before he became a spirit, dies and his body is placed in a similar *pu-o-a* (*Ibid*, 490).

<sup>16</sup> See Ellis, *op. cit.*, 271; Fornander Collection, 5:572.



of human figures, some of which she recognized as those not long dead, but whether the same as those just deposited she did not say. "You may not believe this," said the old lady; "I wouldn't believe it if I hadn't seen it myself."

Mrs. Pukui thinks the phenomenon has a rational explanation. The two old men knew that the volcano was particularly active. The excitement of the moment caused the lava to be seen as if taking on human form. So the Hawaiians think that eruptions of the volcano are due to Pélé's anger when something unclean is thrown into the pit. Throwing a stone or bottle will induce special activity in such fountains as are in the habit of playing; hence a Hawaiian guide will toss in a bottle of liquor and explain the play of fireworks that follows as Pélé's satisfaction in "getting her drink."

#### THE SOUL AFTER DEATH

The soul after death has "three abiding places, namely: in the volcano, in the water, and on dry plains like the plains of Kamaomao and Kekaa (on the island of Maui)", says Kamaka in the early mission days. Miss Green's informant says that according to the god one worshipped, was the fate of the soul. The spirits of those who worshipped the sun followed the sun-god. Others went in the direction of the moon, or followed the course of the wind, all depending upon the god whom they worshipped on earth.

Early reports from Malu and others picture the dead as living in an under-world called Milu conceived very much in the spirit of the Hebrew Hades. Here the spirits dance the *hula olapa* or drama dance, quite different from the modern form. Here they feast on shadowy food and lead a drowsy existence.<sup>17</sup>

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<sup>17</sup> According to Alexander, *Brief History of the Hawaiian People*, (New York, 1891), 77-78, the souls of the dead were conducted by Lolupe to their final abode, either to the heaven beyond the clouds, ruled by the sun god, or to the "hidden land of Kane" in an island to the west. But others went to the underworld, which was divided into two kingdoms ruled over, the first by Wakea, ancestor of the race, where dwelt those who had kept the law; the second by Milu, a wicked king of Hawaii in former days, where conditions were much less comfortable. See Ellis, 275.

A Fornander note (6:337) says. "Manua was another Hawaiian name for

In every district is a prominent point of land jutting out into the sea which is called the "*leina a ka uhane*," that is, "leaping-place of the soul," whence the soul takes its final leap on its way to the regions of the dead.<sup>18</sup> The leaping places of Hilo district on the island of Hawaii, is at the point of Makahanaloa; of Kona, at Kukui-o-pae; of Puna, Kumukahi; of Kau, Leinae-'kua (Leap-of-the-god). At this place there grows an ancient *kukui*, or candle-nut tree, to which the souls cling for their last leap, crowding together upon a green limb (which has the attributes of the dry, in the world of ghosts) so that they may more quickly break it and be hurled all together into the labyrinth that leads to the underworld. The idea is to keep together for fear of losing the way and roaming about as an *ao-ku-e-wa*, or "wandering spirit," until guided into the right way by some friendly spirit. In the Waipio valley is a hole inland which is supposed to give directly upon the underworld.

Of these "leaping places," the point of Kumukahi in the district of Puna, Hawaii, is peculiarly associated with old tradition.<sup>19</sup> It is the extreme easternmost point of the group, a long rocky but level thrust of land washed on either side by the Pacific. When I visited it at sunrise in the summer of 1914, there were five irregular pillars at the extreme point erected by placing one stone upon another. The surmise is that these stones were placed by worshippers of the gods. I cannot discover that any particular practice connected with the burial of the dead attaches to this point,

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the god or chief of the infernal regions, called 'Po-pau-ole,' 'Po-ia Milu,' 'Po-kini-kini,' 'Po-kuakini,' 'Po-papaia-owa.'"

Kamaka (5:574) says that souls in the other world carry on work and sports as on earth, have plenty of food and retain their rank as chiefs or warriors.

<sup>18</sup> Kamaka (*op. cit.*) translates the phrase as "the casting off place of the soul," that is, the place where it is cast off from its body. A soul that reaches one of the "dry plains" which he enumerates, "it will be impossible for it (to) come back again." A description of one of these places at Kekaa on Maui, is given in 5:540-544. The idea of the passage by water to the underworld resembles so closely stories from southern groups that it may well have been superimposed by new comers from the south upon the native conception. See Westervelt, *Legends of Gods and Ghosts*, 18.

<sup>19</sup> In Fornander's Moikeha legend (Fornander Collection, 4:114-116), Kumukahi and Haeshae came to Hawaii with Moikeha, their older brother, and leave his party to settle at Hilo, on the island of Hawaii.

but there seemed to be a cemetery to the right of the trail leading to the point, marked by a number of masonry structures such as Hawaiians today erect over the graves of their dead. A mile or so inland from the point rise two volcanic crater cones called Makanoni and Haehae, which in old days were crowned by temples, or *heiau*. *Pii mai ka la i Haehae, a na-poo i ka welona o Lehua*, that is, "The sun rises at Haehae and sets at the boundary of Lehua," say the Hawaiians at the death of a relative, signifying that he has reached the limit of his days. They believe that the sun comes out of the sea at Kumukahi and call it *Ka ala pii o ka la*, that is, "The ladder of the sun" (or "stairway" up which he ascends from the ocean), and *Ka kumu o ka la*, that is, "The foundation (or source) of the sun." Kalaue of Kapoho described the old *heiau* on Makanoni, which was destroyed in Kalakaua's day, as erected by a chief named Kaupaka, who settled in the district and "wished to do something to make himself known." It was built by the Menehune in one night. From the pit of the crater (of Makanoni) to the beach was a line of dwarfs to build this *heiau*. The stones were passed from hand to hand, and orders were given that none must drop the stones. The stones were set so closely together that not an ant could creep between nor any seed (fall).<sup>20</sup> In plan it was "unlike that of other *heiau* on Hawaii." It was in the shape of a platform with three steps leading up to it on the west side away from the sea. At a certain part of the platform was a flat stone about six feet by four (according to Kalawe's estimate) which was employed as a sacrificial stone.

It was like a table. It had a groove marked upon it diagonally from right to left and a lamp (that is, a round hole for receiving oil upon which a wick floated). and on the night when [certain stars] were in a direct line with this groove (but at no other time) a man was sacrificed.

In cases of illness, sacrifices are still offered at the extreme point of Kumukahi. These offerings are not connected with sun worship but are observed because of the peculiarly sacred nature of the place; it is a *wahi pana*, or "sacred place," of peculiar importance. As it is essential for such an offering that the extreme

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<sup>20</sup> See Rice, *Hawaiian Legends*, 35; Thrum, *Hawaiian Folk tales*, 116; *ibid.*, *More Hawaiian Folk tales*, 215-217.

point be reached and before sunrise, the patient had to be paddled early in the morning in a canoe, accompanied by a priest and carrying an offering in the shape of a whole pig if the patient can afford it, otherwise a fish called *nukunuku-puaa*, or "pig-snout," together with squid, *olena* root, *awa* drink, and other articles all wrapped in *ti* leaves. At the exact point of the reef, the priest holds the offering and chants,

*E hoopakele i na pulapula mai na ino mai,  
a e hoopomaikai mai, i na pono a pau.*

Deliver your progeny from evil  
and bless in all good things.

Then the offering is dropped quickly into the water and the canoe paddled swiftly away. Neither priest nor patient could look back, else "he has his labor for his pains."

According to Mrs. Pukui, the legend of the god Kumukahi is as follows:

The god Kumukahi was a relative of Pélé. He came from Tahiti at the same time as Pélé. He selected the cape as his home and named it after himself.

He was born in the shape of a *kolea* or plover, and could take the bird shape or that of a man just as he desired. His brother, Palamoa, who lived with him, was born in the form of a rooster. Their sister was born at sunrise, and hence received the appropriate name of Ka-hikini-a-ka-la, or "The-east-of-the-sun."

These three were much thought of, because they protected their worshippers. It was supposed that the spirit of Kumukahi had the power to possess a *haka*, or medium, so that he could perform miracles. The *haka* who was possessed by the god Kumukahi, could hold out his hand palm outward, when an *awa* plant would grow up from it to a great height; then he would pluck it out of his hand and give it to those about him to prepare for drink. If he wanted a pig to eat, he had only to speak and the animal would drop dead, ready for the oven. Plants would grow at a word. A medium possessed by the brother, Palamoa, could also show his power in this way, but it took longer for the miracle to be performed.

Besides the special offerings made by the sick at Kumukohi, all sun worshippers in old days came once a year thither to bring offerings.

Wandering spirits of the dead are called "*laper*" and are feared for the mischief they may do the living. Their origin is ascribed by Haleole to the demi-god Ka-onohi-o-ka-la, or "The-eyeball-of-the-sun," who, in the romance of Laieikawai, appears as a divine taboo chief basking in the very center of the sun, from which exalted station he is disgraced by his father's decree and becomes the first ghost in Hawaii. The curse reads:

*e lilo ana oe i mea e hoomaka 'uka'ua'i na alanui, a me ka puka o na hale' a o kou inoa, he Lapu, a o kau mea e ai ai, o na pulelehua; a malaila kou kuleana a mau i kau puo.*

(You shall) "become a fearsome thing on the highway and at the doors of houses, and your name is *Lapu*, Vanity, and for your food you shall eat moths; and thus shall you live with your posterity."

and thus becomes

the first ghost on these islands, and from his day to this, the ghosts wander from place to place, and they resemble evil spirits (*uhane ino*) in their nature.

It is against these wandering and evil ghosts of the dead, called *lapu*, that Hawaiians today shut every window at night and pull the bedding over their heads and about their ears.<sup>21</sup> Seventy year old Walanika says that when she was a child and was caught away from home after dark she used to run home across lots to avoid meeting a *lapu*. The *lapu* has a shadowy form, and sometimes one can even feel its breath. The faster one runs, the faster is one pursued. Certain articles of food which attract ghosts should never be carried after dark, such as *awa* drink, pork and fishes like the *aholehole* and *oopu*. The only way to escape *lapu*, is to drop the food, or one may shame a *lapu* by urinating on a stone and casting it toward the *lapu*, who will then disappear. Some

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<sup>21</sup> Ghosts are represented as talking in a faint twitter, called *hanehane*, or "whispering." See Fornander Collection, 6:301. When the people first hear the spirit of the murdered Kahalaopuna calling to them (Fornander Collection, 5:192) they are "uncertain whether it was the voice of people, the wind, or the squeak caused by the rubbing together of trees." The second time they recognize the voice of a ghost.

*lapu* will precede a person and look back. In any case the *lapu* is conceived as an evil, not a good spirit. Miss Green says:

I remember the righteous indignation of one of my Bible readers—a good woman—over having been frightened through the *lapu* of one of the missionary mothers laid in the cemetery of Kawaihao church.

Old Hawaiians when committing the dead to the earth pray, “*E——, eia no oe ke hele nei! hele no oe, a hele loa!*” that is, —“(name of the dead), here you are departing! go, and be gone forever! *Ke hele, hele loa!*” that is, “Going, go forever!” is the common saying. A widow in the country districts will cut off a bit of her hair or pare her finger-nails and leave them with the dead, saying, “*O kau wahine keia; hele, a hele loa; aole e hoi hon mai!*” that is, “This is your wife; going, go forever; do not return!” But if she wishes the return of the dead she will pray, “*E hele oe, a i manao e hoi mai, e hoi mai no! Eia ka ai, ka ia, ke kapa!*” that is, “Go, but if you have a mind to return, come back; here is vegetable food, fish clothing!”

The reason for wishing the spirit to return is to secure its services in preforming offices of protection or revenge for the living. Sometimes the bones of the dead were not buried but preserved and worshipped as household gods, called *unihipili*.<sup>22</sup> In this case they were stripped of the flesh and wrapped in mats and bark cloth as described above. Bodies were woven to represent a head and bust for preserving the bones of very high chiefs. Worship was paid by prayer and by offerings of food, called *ka-ku-ai*. Such feeding makes the spirit strong, and as long as it is kept up the spirit is bound to serve its worshipper. A bright-eyed little skeptic of Pauela, Maui, confessed that she used to climb in at

<sup>22</sup> Similar Hawaiian beliefs about *aumātua* are discussed by me in the American Anthropologist, 19 (1917): 503-517. Kamaka has an interesting note upon this matter (Fornander Collection, 5:574) which indicates that the spirits of bodies buried near the sea enter such sea creatures as sharks and eels; those buried near fresh water enter the body of a tailed lizard and those buried on a plain enter the body of an owl or other land creature. He says, “These things which are entered by the souls of men become guides (*alakai aia*) to their friends who are living”; and he goes on to say that they enter their (living) friends, and while so possessing them, feed upon “regular food” until satisfied and then go back (into their animal bodies). In return for this vicarious “feeding,” the spirit protects its friend in trouble. “This is one reason why a great many people are prohibited from eating many things.”

the window and eat the offerings laid by her father upon the family altar. When sorcery is practised, it is the *unihipili*, rather than the great gods, who are prayed to.<sup>23</sup> Mrs. Pukui knew a woman who had lost a favorite daughter, and had made her an *unihipilo*. Later, she took a fancy to a little Portuguese child and asked the mother to let her adopt it. When the parent refused she said, "Soon you will not have the child and I will not have the child!" and that evening the girl was taken violently ill and died.

The spirit of the dead is supposed to remain in the neighborhood of the body for some time after death, and by the help of a sorcerer may even be restored to life. Hawaiian legend is full of incidents of this description. In some instances the spirit is even represented as being brought from the underworld to inhabit its body again.<sup>24</sup> More often the spirit is caught while hovering near the place of burial.

In "Eleio,"<sup>25</sup> the king's runner brings back to life a woman, whose body he finds lying dead in the *pu-o-a*. In "Pamano,"<sup>26</sup> the spirit sisters restore the hero to life after he has been chopped to pieces by his rival. In "Halemano,"<sup>27</sup> the supernatural sister twice performs the same office for her love-sick brother. In

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<sup>23</sup> Instances occur in Hawaiian legends in which the bones of the dead are preserved unburied and worshipped as ancestral deities. In the romance of Laieikawai (chapter 20) when Kekalukaluokewa sets out from Kauai to woo the beauty of Puna, he carries with him in his wedding cortège "all the embalmed bodies (*ke aoao*) of his ancestors." In Rice's story of *Pakaa*, (*op cit.* 73), the lad's mother gives him the bones of his grandmother, Loa, in a calabash, by means of which he has the power of controlling the winds when he calls them by name. In the story of *Pikoi*, the rat-shooter gets to Hawaii concealed in a basket in which his friend pretends to be carrying his household gods. On the other hand, Lono (Fornander Collection, 4:574) carries about the bones of the chiefs he has conquered in battle and sings jesting songs at their expense.

<sup>24</sup> A Fornander note (Fornander Collection, 6:337) says: Moku-lehua brought his wife Pueo up again from there (Milu). Maluae brought his son Kaalii back from there: the former by the help of his god, Kanikaniula, the latter by that of Kane and Kanaloa: and thus Hiku brought up the spirit of Kawelu and revived her."

<sup>25</sup> Fornander Collection, 4:482.

<sup>26</sup> *Ibid.*, 5:302.

<sup>27</sup> *Ibid.*, 5:228

"Pumania,"<sup>28</sup> the man who is sacrificed in the temple by his chief, bids his wife carry home the bones and is in one version restored to life, in another assumes a spirit body. In "Kahalaopuna,"<sup>29</sup> the girl is restored to life by her friends after her spirit has made her fate known by flying to the top of a tree and chanting the news of her own death. In "Kalanimanuia,"<sup>30</sup> the lad is killed by his own father who fails to recognize him. His spirit visits the temple for food and is caught in a net by two old priests and worshipped until it is strong enough to come to life again. In this case, the lad at first resembles an animal, but eventually recovers his full form. In a contest, "Nihoolaki,"<sup>31</sup> the son, after his death, is worshipped by his parents until he is strong enough to become a man again, when he lives a new life under a different name. In the Pélé legend,<sup>32</sup> Lohiau, the lover of Pélé, is twice restored to life. In the first instance his spirit flies about the cliffs and is caught with the utmost difficulty by the two girls who are seeking it. In the story of "Ke-au-nini,"<sup>33</sup> the child whom a jealous woman has dashed against a rock is restored by washing and incantation. My guide to the temple of Wahaula,<sup>34</sup> in Puna district, told a legend similar to the Pumaia story of one of the victims who had been sacrificed in that temple. His brother-in-law hid himself there at dusk during the three days while the bones were still exposed before burial, and when the spirits came to dance at night, he learned from his brother's spirit where his bones lay, then he crowed like a cock so that the spirits believed it was day and departed. The brother then took the bones home and restored them to life.

In some of these stories the intervention of gods is expressly mentioned, but generally there is a folk element involved. Even in the Pumaia version in which the restored man lives as a spirit

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<sup>28</sup> *Ibid.*, 4:470; 5:550 Kamaka says (*op. cit.* 5:574) "Should the body die, the soul may appear as if in the flesh."

<sup>29</sup> *Ibid.*, 5:188.

<sup>30</sup> *Ibid.*, 4:548

<sup>31</sup> *Ibid.*, 4:488.

<sup>32</sup> Rice, *op. cit.* 15. 16.

<sup>33</sup> Westervelt, *Legends of Gods and Ghosts*. 200.

<sup>34</sup> For the building of this temple by Paa see Fornander, *Polynesian Race*, 2:35; Thrum, *More Hawaiian Folk-tales*, 46-52, etc.



only, the possession of the bones seems essential to his restoration, and the story says that the jaw-bone has been so crushed in death that the spirit cannot speak but only gesture. In Rice's Pélé legend, Hiiaka "put the spirit back into the body through an incision in the great toe," and she works eight days for entire restoration. In the famous story of "Hiku and Kawelu,"<sup>35</sup> in which Hiku goes down to Milu and fetches back the spirit of Kawelu to rejoin its body, much as Orpheus secures Eurydice, the story reads:

Hiku pushed the spirit of Kawelu into the body from the feet. After the spirit had gone as far as the knees, it came back as it was afraid of the body, for it was decaying. Hiku, however, kept on urging the spirit up into the body, and he did this for some days until it finally entered the body, then on to the breast, then to the throat and at last Kawelu crowed like a rooster. After this she was taken up and warmed until Kawelu was restored to life and was again herself.

#### OMENS OF SICKNESS OR DEATH

Ideas of imitative or contagious magic associated with death cause many natural acts or occurrences to be regarded as signs or warnings of sickness, disaster, or death—in some cases even to bring about such results.

It is a sign of death for children to roll themselves up in mats when they are playing, because most of the ancestral chiefs, the *kupuna alii*, were buried in this fashion. If a dog or a child digs a hole before the house, someone in the house will get news of a near relative's death. If rats get into trunks or boxes or gnaw clothes, a near kinsman is to die. So if a child climbs into a trunk or box in play. If you say in jest, "Take me home in your box!" trouble will come both to you and to the friend to whom you spoke. It is bad luck to repel or turn away another; for example, if a child runs to you, and you repel him, a day will come when he will be separated from you. This act of repelling another is called *kipaku*, "turning away." If a child runs up and kisses another for no special reason, separation will ensue or sickness overtake the child. Hiding from a relative or friend is equally fatal; it is called *peepee akua*, "hiding from god," and presages separation or death. If you give another a gift intended for a certain friend, the friend

<sup>35</sup> Fornander Collection, 5:182.

for whom you intended it will be ill. In the same way it is dangerous to wear another's clothing. Burning or cutting clothing brings poverty; tearing off a garment from another brings separation. If a neckerchief comes untied of itself after it has been tied, there will come separation between man and wife. So, if a hat falls off a peg of itself, you are going somewhere, but if it flies off your head during a journey, your mission will not be successful. It is unlucky to sweep across a person's feet; so, also, never sweep out the house at night lest you "sweep away your luck," but this probably refers to the indignity you may offer to the family ghosts who may haunt the house at night. If the fire sputters and hisses when you are lighting it, you will quarrel with some one; and a fluttering flame is said to presage death.

In all these cases, the mind plays with the mimetic influences which decide human fate. Other beliefs connected with the cries of children or of animals are also mimetic in character; but they contain also the idea that the family gods, who act as guardians of the household, are taking this means to warn of approaching danger. It is a bad omen for a child to pretend to cry even in play lest the family to which he belongs be visited by death. To avert this someone should say quickly, "*E! e uwe ana paha oe i kou ino!*"—"Yes, you must be crying because of your naughtiness!" Night-crowing, called *ulu-moku*, is an ancient presage. The crowing of a hen means death to some member of the family that owns the hen. If a number of cocks begin to crow at night, a number of people will visit the village. In old days it probably referred to a chief's company. A dog howling is an omen of death. So is the cry of the mud-hen or *alae* bird.<sup>36</sup> If a plover, called *kolea*, flies about the house and utters a sharp call, some one is approaching, but if it cries with a short choked voice, trouble is coming to the inmates of the house. "Trouble is coming, but I am here!" is the warning of the protecting spirit, coupled with the assurance of its protection. So, when one is out fishing, if a crab or small fish bites one's toes, it is well to go home at once to avoid being bitten by a shark or falling among the rocks.

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<sup>36</sup> See Fornander Collection, 6:104.

Certain signs relate to the death of chiefs. Whenever a school of small red fishes, called *alalauwa*, enter the harbor, the Hawaiians say that a chief is about to die.<sup>37</sup> On the island of Hawaii the small white fish of the thread-fin family, called *moi—liil* "little kings," denote the same presage. Rainbows are also significant of the fate of chiefs. Both the rainbow which is broken at one end, and the *ua-koko*, or "rain-net," a low-lying rainbow which rises as the sun descends and betokens trouble or disease, are looked upon as signs of a chief's death. By the prevailing color in such a rainbow, the initiated tell to which family the doomed chief belongs. During and after the funeral of a chief, the heavens are watched for rainbows, and if one appears in which the family color predominates, all is well with the dead chief.

All these appearances are believed to be signs from the gods. It is the fear of offending these gods, and hence of arousing them to retaliatory anger, which imposes so many taboos even today upon individual decorum.

Objects or activities considered sacred to the gods are to be avoided by the folk; such are the pastimes which in old days were indulged in by chiefs alone, or the objects which were sacred to their use. It is for this reason that in Kau district, kite-flying brings bad luck; it means that one will either move away or become seriously ill. Playing cat's cradle, called *hei*, at night, brings bad luck. Cutting any portion of the hair but the tips means that some member of the family will die, for the hair is the part of the body especially sacred to the gods. Pointing at the stars, clouds, moon, rainbow, or anything in the sky is unlucky; it shows, I suppose, disrespect to the gods whose "bodies" these are. Death or other calamity will overtake the composer of a song who used inappropriate words. In composing a song for another, also, it is necessary to guard against using any form of words which might be inauspicious. The inexact rendering of a name or song seems also to be considered unlucky. Certain plants are considered especially sacred to the gods. The red flower of the nuku (bird's back) *iiwi* vine, which grows in the mountains, is one of these

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<sup>37</sup> *Ibid.*, 106-108.

dedicated flowers. Should a person, loved by the gods, wear a wreath made of these flowers, no harm will come of it; but if one wears such a wreath who does not possess divine protection, he will be haunted by a headless woman carrying her head in her arms. I saw this pretty blossom on the day of my second visit to the valley of Kumauna in Hawaii, when the Hawaiian girl who accompanied me braided me a wreath of the blossoms and presented it to me saying that none but chiefs wore these flowers. Wreath, or *lei* giving, is a ceremonial act and should be performed only between those of the same rank. Hence, if a person takes a wreath from his neck and gives to it anyone but the closest of kin, he will be afflicted with scrofula.<sup>38</sup> Since wreath-giving was, as in India, connected with the acceptance of sex relations, this taboo may express social disapprobation of exogamous marriages. Still further, only certain families may display the *kahili* with impunity. The *kahili* is a rod elaborately decorated with feathers much like a Chinese duster, and it is the recognized emblem of rank in Hawaii. Its manufacture is a specialized art.<sup>39</sup> The right to make, as well as to employ, the *kahili* belongs to particular families, and for others to share even its likeness is unlucky. Not even a chief may touch a *kahili* unless he is of the proper class. Mrs. Pukui explains that "it bears the name of the ancestor and is considered to be an ancestor"; hence, it is not good form even to turn one's back to the *kahili*. Not only the use of this emblem, but also of the fan, the crown, and the flag pattern is unlucky, because these emblems, too, are closely associated with royalty. They should never be used for patterns on cloth, because the cloth might be used to sit upon and this would be equivalent to using the chief himself as a cushion, and would surely bring upon one the wrath of the gods. The saying is, that the fan will "fan away your luck," but the taboo is, no doubt, derived from the practise

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<sup>38</sup> In Lareikawai, chap. 14, when the beauty of Puna throws a wreath about the wooer's neck for his skill in surf-riding, he "thinks she has taken a liking to him," and goes to her house at night evidently expecting a kind reception, which it is evident the chiefs would have given him had it not been for the guardian sisters and her vow.

<sup>39</sup> For the art of feather work in Hawaii, see Brigham in the Memoirs of the Berenice Pauahi Museum, 1:1-81.

of ceremonial fanning, and the crown and flag have long been looked upon as symbols of chieftainship in Hawaii. For this same reason of respect for sacred things, one should never tell stories of ancestors or their deeds. Family superstitions and stories of *akua*, "gods," should be jealously guarded or the wrath of the ancestors and ancestral deities will be visited upon the story-teller and he will die a miserable lingering death. "Drying out the bones of the ancestors"—*He kaula'i i na iwi o kupuna*—the sin of revealing secrets is called.

Another fatal act which used to be quoted even among the white children in early days in Hawaii, was doing injury to the eggs of the sacred lizard, representative of the terrible *moo* in Hawaiian dragon stories. "If you crush a lizard's egg you will fall off a precipice," we used to say to each other. *Malama pono oe o lele oe i ka pali!* that is, "Take care, or you will jump off a cliff!" an older Hawaiian warns a child. On the other hand, the Hawaiians say, "If a spider falls from the ceiling at night, kill it, or you will hear of a friend's death in the morning."

It is "sudden death for a menstruating woman to touch a legendary, or sacred, object." A person who has been in contact with the dead, a woman after child-birth or at the menstrual period, is considered ceremonially unclean.<sup>40</sup> To protect such a woman inwardly, she should drink water into which a small piece of pandanus (*hala*) has been thrown, or, if the fruit is not available, a bit of *ti*, or, pandanus leaf, chopped fine may be substituted. To protect her outwardly from the power of evil spirits to which she is especially subject at this time, she should hang a wreath of *ti* leaves about her neck, or, if these are not available, then pandanus or bamboo. Miss Green remembers seeing women so protected, and our guide up the sacred valley of Kaliuwaa on Oahu, in 1914, offered us this protection before we entered the legendary precinct. Some one describes the visit of a certain Hawaiian woman to the volcano at such a period, protected not only by wearing the *ti* leaves, but also by the attendance of a man

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<sup>40</sup> A special house, called the *pea*, is reserved for women at this period. See Malo, 27, 52, and Laieikawai, chapter 27.

on each side of her carrying a banner of *ti* leaves to which were tied bits of white bark cloth. The idea is that a woman in this condition defiles the gods and for this reason arouses their anger, causing them in wrath to bring misfortune upon her and her family. Only by purifying herself can she approach the god with impunity. "Sin" against the gods consists in similar profanation, and references to "evil spirits" as opposed to "good spirits" in Hawaii, generally means little more than the feelings of wrath or of benevolence aroused in the same ancestral deities according to the treatment they receive from their worshippers.

This is especially apparent if we consider particular cases. The *hula* dancer is a person especially dedicated to Laka, goddess of the dance. It is necessary for such a novice at all times to eat her *poi* (or pounded *taro* root) out of an individual bowl; to eat all the food on her own dish; never to throw anything dirty into water or any stone into a place of filth; to drink *awa*, and, in case of contamination by going to the house of a dead person, to offer a pig to the goddess. Only in this way does she keep herself ceremonially clean for possession by the goddess. If she is unclean, the goddess will work evil and not good within her. If she gets out of step, it is a sign that she has done something to anger the god and she must offer sacrifices in order to escape serious illness.

I do not know if it is in relation to these sacred taboos, that certain prohibitions arise in connection with having one's picture taken. If you have a photograph taken smelling a flower, you will meet with sudden death, and we know that scented flowers are considered sacred to the gods in Hawaii. If a baby is taken without clothes, it will be sickly for a number of years. This fear of nakedness in a picture may be connected with the bad luck which attends meeting a naked adult when going on a journey. A person taken with the back to the camera is sure to die. Signs attending other poses are evidently suggested by imitative magic. A folded hand with the chin resting upon it is unlucky; it means that misfortunes are in store to meditate upon. A hat means travel. Hands behind the back mean misfortune; the pose is connected with the idea of burden-bearing in the sense of misfor-

tune. To meet a person with the hands clasped behind or at the back of the neck in the position called *opea kua*, is bad luck.<sup>41</sup> It means that the person is wishing misfortune upon you. To avert the evil you should say, "*E haawe ana oe i ka aha?*"—"What burden are you carrying?" Equally unfortunate is it for a man to be photographed in women's clothes or a woman in male attire.

Other signs and safeguards are connected with the house. The erection of a house on an old site, or the addition to or tearing down of an old house, brings death to the owner or occupant. A house should never be built so that one can see out of the back door on entering the front, lest the luck go out as soon as it comes in. Trees should not be planted at the front of the house, nor should avocado pears be planted one in the front yard and another in the back, "lest the one in front complain to the one at the back and the one at the back complain to the one in front and their complaints cause illness or misfortune." Heaps of stone or coral at the front of a house bring bad luck. Square or oblong objects, such as blocks or boxes, should not be placed at the front of a house. I suppose because they suggest the masonry erected over graves. Swings should not be placed in the front yard, and jumping rope there or in the house brings bad luck. There are other taboos of this character, about the inside of the house. Marbles should not be played in the house. Fish-nets brought into a house bring misfortune. Cane with leaves left on "will bring awful calamities upon the family" if brought into the house. To avert misfortune, a beating must be imposed upon the offender.

All of these taboos seem to imply the idea that ancestral spirits are constantly at hand, that the yard in front of the house and the inside of the house are sacred to them, and that they are susceptible to suggestion and quick to wrath. Very curious are the simple expedients employed to divert the god's attention and present a substitute for the severe penalty of death, for the suggestion implied in the broken taboo. For example, if the word *make*, that is, "death," should be spoken after sun-down, to avert literal death to some member of the family one must say quickly,

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<sup>41</sup> For this and other "signs" see Fornander Collection, 6:92-98.

"*He make ko ka po, he hakaka ko ke ao!*"—"Death at night, a quarrel in the morning." If a person finds upon himself a red bruise that he cannot account for, the presumption is that a living spirit is giving this warning of his approaching end. The family must ward off the evil by assembling in one room and gently biting the bruise one by one while the sufferer calls out, "*Auwe, nahu ia au e—!*"—"Alas! I am bitten by —!" If anyone is absent, a young member of the family acts as his proxy. Or the biter himself will say "So-and-so bites you!" and the mother or another reliable person acts as proxy for any absent member of the family. This will prevent from dying the one who originally bit into the flesh as a sign of his approaching death. The idea may be to fool the gods so that they will be unable to distinguish the original biter and cannot single him out for destruction, but some say it is "to show that all the family are blameless from causing death to the biter." The identity of the biter is supposed to be indicated by the position of the spot. If it occurs anywhere above the waist, the bite was given by a female; if below the waist, by a male. If it is on the right side the biter was a relative; if on the left, a friend.

#### THE TREATMENT OF THE SICK

The whole question of Hawaiian usage of herbs, massage, and other natural cures for the sick has yet to be studied in detail. Prayers to the gods accompany their employment.<sup>42</sup> Mrs. Pukui says that the ancient Hawaiians stood facing the east and chanted their prayers at sunrise; in the evening they stood facing the west. Intercession for the sick was generally made at high noon. Ku and his wife Hina are worshipped as the keepers of medicine and must be invoked when herbs are gathered. The god Lono is also associated with medicine. In the invocations when herbs are gathered, the side of the body affected is to be considered. The female deities, *akua wahine*, guard the right side of the body, the male deities, *akua kane*, the left side; hence the herb-gatherer must pick with the right hand or the left and invoke female or

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<sup>42</sup> See Malo, 144-150.



male deities according to the side affected. The following prayer used by herb-gatherers is dictated by Mrs. Pukui:

*E, Ku, e! i kii mai nei au i ka laau no— i keia—, i mole i Kahiki, i aa i Kahiki, i kumu i Kahiki, i lala i Kahiki, i lau i Kahiki, i opu i Kahiki, i pua i Kahiki, i hua i Kahiki. E ola ia oe, e ka akua, a kolo pupu, a haumukaiole, a kau i ka pua aneane. Amama, ua noa!"*

Ku, (or Hina), listen! I have come to gather for (name of the sick person) this (name of the plant) which was rooted in Tahiti, spread its rootlets in Tahiti, produced stalks in Tahiti, branched in Tahiti, leafed in Tahiti, budded in Tahiti, blossomed in Tahiti, bore fruit in Tahiti. Life is from you, O god, until he (or she) crawls feebly and totters in extreme old age, until the blossoming at the end. Amama, it is freed."

If natural remedies do not succeed in curing the patient, the illness is ascribed either to his god whom he or some member of his family has wronged by breaking a vow<sup>43</sup> or taboo or to some enemy, and recourse must be had to prayer and sacrifice, in order to propitiate the offended deity. Since the offender against a family god is merely one of a group against any one of whom the penalty may be visited, propitiatory exercises are often shared by the family.

When a Hawaiian wishes to secure forgiveness of sins from his ancestral gods and demi-gods (*akua* and *aumakua*) he concludes his prayer with the sacrificial rite called *Pani*, or "closing up." The suppliant picks a young *taro*-leaf, takes a chicken egg, and wraps them separately in two bundles of *ti* leaves. He then lights a bonfire, and, after asking his *akua* and *aumakua* for pardon, places the bundles on the fire. If the egg explodes with a loud noise his sin is forgiven; if it does not, he must offer another sacrifice of egg and *taro*-leaf. Two eggs may be used, one of which is eaten by the patient and the other offered to the god. Mrs. Pukui has herself performed this ceremony. It is the invariable conclusion also of an extended ritual and is believed to end the proceedings properly "like a period at the end of a sentence," says Mrs. Pukui. All the objects in this expiatory rite have symbolic value.

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<sup>43</sup> In Laieikawai, chapter 17, the unsuccessful suitor who has vowed to his god to have nothing to do with women until he has won the beauty of Puna, before seeking the hand of another woman "with his underchiefs and the women of his household clapped hands in prayer before Lanipipili, his god, to annul his vow."

A pig, a white fowl, and *awa* drink are the ordinary ritual offering to the gods.<sup>44</sup> In this case, the *taro*-leaf, commonly cooked by the Hawaiians into a dish of greens like our spinach and so called *luau*, has the symbolic name of *puaa-hulu-ole*, or "hairless pig," and represents the pig which is too costly to provide except as a last resort. The egg represents potentially the fowl. The *tī* leaf, called *kanawai*, or "command," represents the covenant between gods and man, and is the invariable symbol in Hawaiian religious rites of the actually obligatory bond between a man and his family deities. If any person outside the immediate family should happen in, during the ceremony of *Pani*, the efficacy of the ritual would fail and it would have to be begun all over again. Mrs. Pukui has seen Christian Hawaiians go through a ceremony which they call *Pani*. They offer prayer to God and then slip a coin into the Bible at any chance place. The book is then opened and the text consulted nearest to which the coin lies. If the text is favorable the prayer is granted, but if it turns out to be a "woe," the petitioner must begin all over again.

One example of ritual supplication is as follows: a part Chinese Hawaiian woman born in Lahaina, Maui, says that when she was ill as a child her mother made supplication thus. As the morning sun was peeping over the mountains rising directly east of Lahaina, the child and her mother stood facing the sun. Water in which *olena* leaves and salt had been thrown, was sprinkled toward the rising sun and on the head of the patient while this prayer was recited: "*E, Ku! e hoola i kuu keike i loaʻa i ka nawaliwali!*" that is, "Ku, listen! heal my child who is smitten with illness!" Five times each day, five days in succession, the ceremony was repeated, because in the Ku worship, five is considered "the perfect number," according to Mrs. Pukui. "*Ku a lima*", is the saying,<sup>45</sup> or, "Ku by fives." On the afternoon of the sixth day the ceremony of *Pani* was performed.

<sup>44</sup> In Laieikawai, the seer prepares a sacrifice consisting of a "black pig, a white fowl and a red fish," to offer to his god. For other equivalents for the pig, like a species of grass called *kukae-puaa* (excrement of the pig), a species of mullet called *puaa ama-ama*, and a carved block of wood called *puaa-kukui*, see Fornander Collection, 6:10.

<sup>45</sup> The number five often occurs in ceremonial usage. In Malo, 146, five layers of bark cloth are used to cover the ovens lighted for the preparation of the sacrifice

If a substitute sacrifice fails, then a blood sacrifice must be made of an unblemished pig or chicken. This is offered to the god, and the shadow substance is supposed to be eaten by him while the family partakes of the material food. Should this act not be accepted by the offended deity, and the sufferer continue to be afflicted, the case is considered hopeless.

Two recent examples of such a belief are quoted by Miss Green. Old Victoria, an inmate of the Lunalilo Home for aged people, told Mrs. Pukui that her *aumakua* was a shark; hence, it was forbidden her to taste shark flesh. After her marriage her husband asked her to roast some shark flesh for his meal and she did so. Soon after, she was taken violently ill and became, in consequence, blind and toothless. "This old woman I know," says Miss Green, "a merry old soul, cheerful despite eyes sunk deep in their sockets and nary a tooth." The second case is that of a seventeen year old Hawaiian lad from Paia, Maui, who was brought to the Shriners' ward of the Children's Hospital in 1923, suffering with a hump over the ribs and otherwise crippled. Soon after he arrived he was visited by his mother, who proved to be a woman of the most ignorant class. After her visit the lad refused to remain longer for treatment, declaring that he could never get well because his illness was due to the vengeance of an *aumukua* ancestor in caterpillar form who was punishing him for once cutting a caterpillar in two when he was a child.<sup>46</sup>

In case an evil spirit has taken possession of the person and is causing the sickness, a *haka* must be employed to drive out the spirit.<sup>47</sup> The idea is that the ancestral guardian spirit of the family may be invoked to enter the body of some member of the family and reveal through that person the occasion of the sickness and the means of its cure. The person through whom the spirit

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for the sick, one in the men's and one in the women's house. In Fornander's "*Poly-nesian Race*," 2:62, the women's skirt of five-fold thickness is introduced by an ancient chiefess from the south. In Rice, 15, a man restored to life is bathed five times for purification. In "Laieikawai," there are five famous sisters and it is always the fifth who achieves when all the rest have failed.

<sup>46</sup> See Miss Green's story of Kilau, Publications of the Folk-lore Foundation of Vassar College, 3:44.

<sup>47</sup> See Malo, 135-141, 150-158. Fornander Collection, 6:112-114.

communicates with the family is called a *haka*, and the ceremony at which he makes the communication is called a *noho*, or "sitting." The family spirit, or *aumakua*, comes into the home where there is sickness and trouble and induces trance in some member of the family who has *haka* power. It ejects the *haka's* spirit and enters his body, through the head if a friendly, through the feet if an unfriendly, spirit. To test the spirit before receiving its communication, some member of the family should weave a wreath of *ti* leaves, called *la-i*, or of pandanus, called *lau-hala*, and try to throw it about the neck of the *haka*, who will accept the wreath if the spirit is friendly, but, if it is unfriendly, will spit, glare, tear the clothing, or even plunge naked into the bushes. Such an unfriendly spirit may enter into the body of a child or of a helpless person and make him insane, but it can be expelled by giving him a drink made by steeping in water a kind of coarse grass called *mau-u-aki-aki*. If the spirit is friendly, it will give proper counsel as to what medicines to administer, what prayers to offer, what fish to catch or herbs to gather from the mountains, in order to expel the evil spirit supposed to be sent into the sufferer by some sorcerer.

The best printed account of old Hawaiian beliefs about the power of sorcerers to compass the death of an enemy by means of various mimetic exercises accompanied by incantations, together with specimens of prayers used to avert such sorcery, is contained in Mr. Joseph Emerson's brief paper, *Selections from a Kahuna's Book of Prayers*, published in the 26th Annual Report of the Hawaiian Historical Society, Honolulu, 1917. I have little to add to this report in the present paper. A number of years ago I visited the Sunday service at the City Prison in Honolulu and afterwards accompanied a friend into the women's ward. A young woman of the type termed "interesting" attracted our attention. Her features were sharp and delicate, her hair hung in ringlets about a pretty head, which she kept drooping during our visit. Upon inquiry we were told that she had done six or seven people to death in her district by sorcery. A few years ago a plantation manager on Maui told me that he had one day met a robust, able-bodied Hawaiian of his district on his way back from a neighbor-

ing town and upon asking his errand had learned that he had gone to order his coffin. The white man looked at him in surprise, seeing no trace of illness, but the man assured him that he was being done to death by some form of *anaana*, or sorcery, and although the manager laughed at his fears, within the specified time he learned that the man was dead. It is, therefore, evident that the practice survives, and, indeed, some of the simpler methods described by Emerson, such as that of writhing like an eel (called *Ka Oni*) in order that the victim may writhe with pain in like manner; or of marking two lines in the form of a cross on the ground (called *Na Kaha Pe'a*), which will sprain a man's ankle or otherwise injure his foot when he steps on it; or, *Ka Houpuupu*, that is, the practice of giving false alarms, do not seem to be known to Alexander, who has a chapter on the subject in his *Brief History*, and hence may possibly represent newer patterns.

Mrs. Pukui says that in old days the priests, warriors and *hula* masters were initiated into the *ailolo* for their chosen work.<sup>48</sup> They first learned the art of *anaana*, or putting a man to death by sorcery, and that of *lua*, or killing him by breaking his bones. Then a near relative was put to death and gifts of food and drink offered to the departed in order that it might remain with them and make them skillful in their work. Other forms of ordeal were also imposed. The performance thus became a test of strength between the gods invoked by rival suppliants. No sorcerer could harm a man who had the brother of Pélé for his guardian god, that is, Ka-moho-alii, the fire god who takes a shark form, or was a worshipper of Pélé, the fire goddess; but anyone with an inferior *aumakua* was susceptible to the sorcerer's incantations.

The common ceremony performed today to expel an evil spirit sent by a sorcerer and drive it back to the source from which it came, is to dress and bake a white cock (*moa lawa*) in an underground oven. Part of the chicken is then fed to the patient. The spirit within him will cry, "*Heaha ka uku ia oe no kou lokomaikai*," that is, "What shall I do to repay you for your kindness?" The one who has prepared the chicken will say, "*Hele oe i kou kahu*,

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<sup>48</sup> See Green, *op. cit.*, page 2, note 3.

*ka mea nana oe i houna mai; ilaila kou hale, kau ai, kau mea inu, kau moena: e luku i kau Kahu, a kau uku ia ia makou*", that is, "Go to your keeper, the one who has sent you here, there find your home, your food, your drink, your mats; destroy your keeper and that will be your gift to me." The spirit is then expected to leave its victim, but if two or three spirits are tormenting the patient, the case is hopeless.

Two examples of modern *haka* ceremonies will illustrate the methods employed to get into communication with a household spirit and discover the cause of a disease and the cure to be applied.

A *haka* ceremony described by Annie Aiona took place some years ago when a relative, who was very ill, had been treated by doctors in vain. The family went from Lahaina, Maui, to Kaanapali, where a relative lived who was a *haka*, and took up their residence at her house in order to insure quiet, for a spirit does not like interruptions. In the evening, after the day's work was done, a white cloth was brought out and spread on the floor. Cocoanut-shell cups of a ceremonial kind (called *kanoa*), cut lengthwise and used only by chiefs and in religious rites, were placed upon it, and also three or four smooth pebbles of a sacred character "to keep out evil spirits."<sup>49</sup> These objects, the cloth, the cups, and the pebbles, when not in use, were kept by themselves in a hidden part of the house. Only the *haka* and those of the family who were trustworthy were allowed to handle them.

When all was ready, the door was closed and the members of the two families sat about the cloth and drank *awa*, prepared by the husband of the *haka*, and whisky or brandy of which the gods are also very fond. Between the cups of drink the *haka* offered prayer, in this case to a deceased ancestor, an *unihipili*, one who had been a strong character in life, begging him to help them in their trouble. After a while the *haka* fell into a trance (or a nap) for about ten or fifteen minutes. Upon awaking, she began to question the patient, his wife, and other members of the group, in order to find out the exact nature of the disease. That first evening brought no result. The *haka*, Mrs. Aiona says, was not

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<sup>49</sup> See Westervelt, *Legends of Gods and Ghosts*, 197-199.

a pleasant woman and she drank too much, but some of the things she said were "admirable." She arranged a second "sitting," since the answer to prayer might come in a dream, and bade them "In the meantime worship God and not quarrel among yourselves," admitting the power of her spirit to be inferior to that of "the great God above me." Eventually she prescribed an herb medicine with which to rub the dropsical body "that the matter might be drawn through the pores of the skin." This was used and the patient lived for some years afterwards.

Mrs. Pukui recounts a visit which her mother made with her when she was a child to a noted *haka* who was possessed at times by the spirit of Ka-moho-alii, brother of Pélé. As a child, Mary could not bear to taste meat in any form, and her mother was apprehensive of this distaste. When the two were on a visit to Kauai she heard of this *haka* who was living not far away from the place they were visiting and, armed with a bottle of gin and five dollars in money, she took her daughter for an interview. After they were seated in the house, and the *haka* had entered—a large man dressed in a startling red suit made with loose trousers and a smock-like shirt (called *muumuu*) which looked as if put together by an inexperienced person—a red cloth was spread on the floor upon which the gin and money were placed, together with the offerings of other suppliants. He inquired kindly what ailed the *moopuna* ("grandchild"), but upon learning the difficulty he said with a look of intense anger and with fire in his eyes, "Presumptuous (*hookano*) to ask such a favor of the very gods who have bestowed the aversion upon her!" and stalked out of the room. By his reference to the "gods whom he worshipped," the mother concluded that he was aware of the child's secret name (which contained the name of the goddess Pélé), and she burst into tears in her fright. Eventually the *haka*, although he could not help her, condescended to accept both the money and the gin.

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## THE CEREMONIAL CALENDAR OF THE TEWA OF ARIZONA

By ELSIE CLEWS PARSONS

THE TEWA of First or East Mesa arrived among the Hopi some time before the end of the eighteenth century.<sup>1</sup> Their language is still Tanoan; the scene of many of their folk-tales is laid, not at one or another of the ruins of the surrounding country, like the scene of Hopi tales, but at *kunlyukyut'ee*, which is also a place name in several tales told by the Tewa of New Mexico (several folk-tales and tale incidents are striking parallels in both Tewa divisions); and the ceremonial organization of Tewa is in certain particulars non-Tusayan. To the somewhat meagre published data, mostly on the kachina cult which does not differ in general from the Hopi kachina cult, I can contribute certain ceremonial data secured during two visits to Sichumovi where I lived in the house of a Hopi woman married to a Tewa man, and during a visit of the latter to the country of the Northern Tewa, where I too was visiting.

### CALENDAR

December	<i>t'an'aii</i> or winter solstice ceremony.  <i>k'atsina</i> dances after <i>t'an'aii</i> to the Hopi <i>niman</i> kachina in July; horned serpent dance, Buffalo dance, etc.  Games, more particularly hidden ball, up to the Hopi <i>powamu</i> ceremony.
January	War ceremony, <i>kah'bena</i> , obsolete.
February	<i>kauto'po</i> (Hopi, <i>powamu</i> )  <i>'yu'yuki</i> , ground freezing ceremony, obsolete.

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<sup>1</sup> Garcés mentions Hano, the Tewa town, in his Journal of July 3, 1776. Current references to the migration having been made in the early years of the Eighteenth Century are based on Bancroft's use of unpublished Spanish documents and to inference from the unsettled state of Rio Grande towns at that period.



March	<i>ti'yogeo'</i> , "they act as summer."  Races by kiva or by various clan groups, and by field workers, also hockey by kiva up to the close of the planting season, to
June	<i>t'ibit'ant'oloan</i> or summer solstice ceremony.
August	<i>tanpen</i> ( <i>shumaikoli</i> or <i>yaya</i> ceremony).
October, sporadically (1921, Oct. 22-3)	Harvesting for Town Chief, with ritual by Town Chief for the general welfare.

### T'ANT'AIH OR WINTER SOLSTICE CEREMONY

The date is the same as at Walpi, being determined<sup>2</sup> by the Walpi i.e. Hopi, not by the Tewa, Sun watcher (Tewa, *t'angmangkwinhuñix*; Hopi, *tawa otaima*).<sup>3</sup> There are two winter solstice Tewa chiefs, *t'ant'aii toyun*, Satele, Bear (*k'eh*) clansman (and Town Chief, Tewa, *poan'toyo*;<sup>4</sup> Hopi, *gigmungwi*) who goes into

<sup>2</sup> The sunset is observed. See Fewkes, J. W. "The Winter Solstice Ceremony at Walpi." *American Anthropologist*, XI (1898), 69.

<sup>3</sup> He is K'elang, of the Cloud clan (*okuwah t'owa*). K'elang's predecessor was K'osha of the Sun (*t'ang*) clan, now extinct. (In 1894 there was but one survivor, a male.) (Fewkes, J. W. "The Kinship of a Tanoan-Speaking Community in Tusayan." *American Anthropologist*, VII (1894), 166). It is said that the "Cloud people used to watch the sun, then they gave it [this function] to the Sun people, then after the Sun people were all gone, the Cloud people got it back." Thus succinctly, but there is a longer legendary history. Before the migration from New Mexico, the *sumaikoli* belonged to the Cottonwood clan [because the *sumaikoli* are *okuwa* (Kachina, also clouds) and the Cottonwood clan is an *okuwa* clan. The Cottonwood clan "has Crow in their clan," i.e., one of their maternal families is Crow. That is why the *sumaikoli* wear Crow wings]. Now the *sumaikoli* being blind, it was too much work to carry them in the migration. So they hid from the *sumaikoli* and left them behind. But then the *okuwa* (Cloud) clan came along and found the *sumaikoli* and took them along. "That is why the *sumaikoli* were in the Cloud clan's house" on First Mesa. . . . When there was fighting against the Ute and Navaho the Navaho came into that house and took out the *sumaikoli* and threw them down the cliff. A Sun clan woman looked down and found them and took them to her house. That is why K'osha of the Sun clan used to look after them. . . . To pay back for the care of *sumaikoli* by the Sun clan, K'elang of the Cloud clan took K'osha's place as Sun watcher.

<sup>4</sup> Referred to as *nambi seno*, our old man. The Hopi do not refer in this way to their Town Chief. The Zuñi Town Chief is referred to as *akyakwemosi tashi* (houses, chief, old one); the Jemez Town Chief as *w'ivela*, chief, old man; and the Northern Tewa refer to Town Chiefs and other ceremonial heads as *sen'o* old man.

*mona te'*, which is the kiva in the plaza sometimes called *toyo'te'* chief kiva; and Posumi, Sand clan chief, who goes into the other of the two Tewa kivas, *tewa* kiva. Alā, the Corn clan chief, goes with the Town Chief,<sup>5</sup> "to make the road," after the Town Chief has put up the altar, from the altar to the ladder. On top of this meal road are put down two feathered strings (Tewa, *p'olo*; Hopi, *pūtabi*), one the length of the outstretched arms, the other from the tip of the middle finger to the middle of the chest. Near the ladder are placed as watchers (the morning of prayer-stick making) images of the war gods (*awēle*)<sup>6</sup> and of Spider Grandmother,<sup>7</sup> on sand provided by the Town Chief. The Town Chief has made a standard (Hopi, *nachi*) of a clay ball, supporting two eagle wing feathers, to erect on top of the kiva, and at sundown to take back into the kiva.<sup>8</sup> *Enu*, boy, this particular standard is called.

The Tewa chiefs have gone into kiva in the late afternoon (the Hopi chiefs go into their kivas in the morning). At night all the men belonging to *mona* kiva have to go there and all belonging to *tewa* kiva<sup>9</sup> have to go there—to stay three days during which

<sup>5</sup> Alā's own brother used to go into *tewa* kiva; after his death a Corn clan woman continued to grind meal for *tewa* kiva and to take it there, but Posumi himself made the meal "road." In 1920 they were to put in one of Alā's sister's sons to make the road, but the Town Chief would not agree to it, so Posumi still (1924) makes the road.

<sup>6</sup> K'elang, Badger (Cloud clansman, Sun watcher) "looks after *awēle*," as did his predecessor, K'osha. The images are still kept in K'osha's house, a deserted house, which had belonged to K'elang's mother. A woman, child of Cloud clan, in Alā's house where K'elang is living, gives the *awēle* food. K'elang's mother went to live at Shōhmopavi during a famine. Her daughter and granddaughter still live there. Solberg refers in 1903 to Sikyapiki, chief of the Snake society of Shipaulovi, as the chief of the Hano Sun priesthood [?] (*Archiv f. Anthropologie*, IV, 48, 1906). Later note. Today (1924) K'elang is living with his own clanspeople, but the same woman still feeds the images, also the *shumaikoli* masks (see p. 210) in the same deserted house.

<sup>7</sup> Satele, Town Chief, looks after the image of Spider Grandmother. Formerly, in the same house, the image was kept by Pohtun, the mother's brother of Satele. Prayer-feathers are made for Spider Grandmother at the Winter Solstice ceremony.

<sup>8</sup> From the same clay an image of the horned snake (Tewa, *avaiyo*; Hopi, *palūliukon*) was also made and inlaid with kernels of corn. The animal fetiches on the altars, "the watchers," are mountain-lion, wolf, wild-cat, badger. (Fewkes, J. W. "Winter Solstice Altars at Hano." *American Anthropologist*, I, (n.s.) (1899), 266-268.)

<sup>9</sup> Bear, Corn and Tobacco clansmen belong to *mona* kiva, which is accounted as belonging to the Corn clan. *Tewa* kiva belongs to the Sand clan and all Sand clansmen belong to it. Of the other two Tewa clans, Cloud and Cottonwood, a few members belong to *mona* kiva, the rest to *tewa* kiva.

the members of *mona* kiva fast from food and drink until the close of the day. On the third morning members of both kivas bathe and have their heads washed in their houses, and return to kiva to make prayer-sticks (Tewa, *odupeh*; Hopi, *paho*<sup>10</sup>) for field, corn store, and house; feathered strings (Tewa, *salapehle* from *sala*, run, race,<sup>11</sup>) the feathers of which are short wing feathers from eagle or hawk, for one's offspring and for one's sheep, cattle, and horses; and ordinary feathered strings (Tewa, *pehlechidi*; Hopi, *nakwakwosi*) for all one's clanspeople and the children of one's clan, i.e. offspring of the men of the clan. The water the prayer-stick paints are mixed with, is brought from a spring associated with the Bear clan, i.e. there, their ancestral being (Tewa, *sena*, old man; Hopi, *wöye*) is said to live and which the keeper of the being's mask, the clan mask, has to keep clean.

Early in the afternoon women from every household bring food to the kivas. The Bear clan woman, i.e. the mother or sister of the Town Chief, is the first to come, after her the Tobacco clan woman, then the Corn clan woman. The food of the Bear clan woman is first eaten of, by all the men in the kiva, then in order, that of the next two women. "This they do to become strong old men." After sundown the men go out to distribute from house to house to their clanspeople and children of the clan, the feathered strings. The distributors are grouped by clan, going single file with the oldest man of the clan in the lead. "Thanks! Thanks!" every one says.

The men return to their kivas, where half the night<sup>12</sup> they

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<sup>10</sup> These measure from base of thumb to tip of middle finger. The feathers are eagle and yellow bird bound with a pine needle, with a turkey feather at the back, also a spray of *gutierrezia longifolia*. This is the standard Hopi stick. I was told there was no specialized Tewa prayer-stick. But see "winter Solstice" altars at Hano, 266. In this connection we may note that the use of prayer-sticks by the Northern Tewa is comparatively slight.

<sup>11</sup> Indicating that "they may grow up quickly."

<sup>12</sup> The stars are observed "to start their songs by"—*kwidiiing* (lines), i.e., the six stars of Orion, and *tiliing* (patch) i.e., the Pleiades. These constellations (only the belt of Orion) are observed by the Town Chiefs of the Northern Tewa, under the same names. The same constellations are observed by the Hopi in the *wöwöchim* ceremony and in the winter solstice ceremony. Orion's belt is thought of as a bandolier, for the constellation is a war chief (*kahlektaka*).

sing war songs "to make the Tewa men brave," and the hearts of enemies weak, during which four or five young men go out and shoot. There are twelve songs: two rattlesnake songs, two big snake (Hopi, *wōkotchua*, *wōyuk'a'*, big, *chua*, snake; Tewa, *pəyo-soyo*) songs, two sun songs, two war god (*awēle*) songs, two bear songs, two wildcat (Hopi, *tokochi*; Tewa, *kən*) songs.<sup>13</sup> Then into the early morning, they sing *t'ant'aii* songs. At midnight the corn that has been brought into the kiva and placed upright on the altar is laid lengthwise as if it had matured and was ready for harvest. Peaches etc. made of flour by the women, and clay figurines of the domestic animals made by the men had also been placed overnight on the altars. The corn is taken back to the houses it was brought from by the men who brought it, not distributed Walpi fashion.

After the singing ceases a Bear clan man performs exorcising rite with buzzard wing feather and ashes. Town Chief goes out and places his "road" at the shrine back of *tewa* kiva. He returns to his kiva, and now all the men take out their prayer-feathers to the same shrine or to the one at the Gap. After them the people in the houses take out their prayer-feathers to the same shrines. Left alone in kiva, Town Chief takes his altar apart; the sand he carries to the shrine, the other things he leaves for four days in the kiva where for the four nights he also sleeps.

*T'ant'aii* is thought of as a ceremony into which initiation must be made. For example in 1921 three boys, aged from eighteen to twenty, were taken into *mona* kiva. The day Town Chief went in, the candidates entered the kiva, holding some corn meal in their hand which they gave to the man they chose for their "father." He takes the meal and sprinkles it on the altar. . . . There has been no initiation since 1921; but this year (1924) there is to be one. . . . Formerly, long ago, girls of the Bear, Corn,

<sup>13</sup> The animals, likewise the stars, are referred to in terms of color direction, e.g. *kanyots'eyesing* (or *se*), wildcat yellow man, *kanyoch'qwasing*, wildcat blue man, *kanyopilusing*, wildcat red man, *kanyochqyosing*, wildcat white man, *kanyokuising*, wildcat dark man, *kanyotusing*, wildcat all colors, man. *Yo* is an inserted song syllable. e.g. Bear Yellow Man is *kichyots'eyesi* if sung, *kichts'eyesi*, if spoken. Snake in song is *kwəmpu*. instead of *pəyo*.

and Tobacco clans used to go into *mona* kiva the night of prayer-feather making, "because they got their *t'ant'aii* ceremony from a girl, Yoopobianyo, Cactus Flower Girl." The story goes that they met her on their way to First Mesa from New Mexico. "She brought *t'ant'ai*" for the people. She sang the songs they still have."

#### K'ATSINA<sup>14</sup> DANCES AND CLOWNS

K'atsina or kachina dances as well as the Horned Serpent dance (Hopi, *palulukung*; Tewa, *holong'e*) which may be given in March, and the so-called girls' dances like the Buffalo dance, *howina*, etc. are either participated in by Tewa men associated with Hopi kivas and households or performed independently by the Tewa kiva groups, just as they would be performed by Hopi kiva groups. They are given on the other mesas to return a dance given on First Mesa, or they are given in a more or less set series after the *powamu* ceremony, sometimes as the outcome of a vow in sickness, a sick person having said, "If I get well, let them dance for me." The kiva chief is, as at Walpi, in charge of the kiva dance set; there is also, as at Walpi, a "kachina father" who leads the kachina from place to place and sprinkles them with meal, tells them to start their song, and makes a prayer-feather for every kachina impersonator to deposit, either at the Gap, the Tewa kachina going-away place or house, or at *kowaiwaimove*, the Hopi kachina house. At Tewa, Yati, a Cloud clansman, has been the kachina father; but now he is getting too old and his place is being taken by his sister's son, Tsulu. Tsulu has to be present at every Tewa kachina dance or dance practice *unless* Machiwu'ma, the Walpi "kachina father," is present. Machiwu'ma can go to Tewa dance or dance practice whenever he wants to or he may be specially invited. The Walpi, or we may say, the paramount "kachina father" of First Mesa has to belong to the *powamu* ceremony, he is acting for *powamu* chief. Plainly the Tewa "kachina father" is only an understudy.

The only at all distinctive Tewa contribution to the mesa dance program are the Tewa clowns (*koyala*) whose make-up

<sup>14</sup> *Okuwa*, clouds, which is the New Mexican Tewa term for kachina, is used on First Mesa only in songs.

differs somewhat from the Hopi clowns (*chüküwimpkia*), who paint white and whorl their hair like a girl. The Tewa clowns stripe black and white and wear two horns of leather. A Walpi or Sichumovi kiva giving a dance will designate particular members of *mona* kiva or *tewa* kiva to play clown or *koyala*. The dance head<sup>15</sup> will designate the man to be the *koyala* head, sending his message as, "Come to eat at *kisonbi* (dance plaza)"; and particular kachina impersonators will designate as clowns, other members of the given kiva. Four to six clowns will be thus designated. Formerly the *koyala* (? *kwirana*) were called *kossa* (the Northern Tewa term) and there was a permanent organization and ceremony (*kossa po'porne*), and only its members came out to play. The ceremony belonged to the Cottonwood clan. The organization lapsed a long time ago, before my middle-aged informant was born. Recruiting was through sickness (if the man called upon by the sick person, adult or child, to become his "father" belonged to the *kossa*, later he would take the convalescent into his society; the equivalent was done also in connection with the 'yu'hu'ki ceremony and the *tapeng* ceremony (see below) or through trespass. The trespass initiation (Tewa, *naw'i*; Hopi, *kwisna*, trapped) is maintained in form. Any one coming into the kiva where the clowns are dressing has to join them, and any child running into the "house" they make for themselves in the plaza is caught and, under a blanket, is made up on the spot as one of them.<sup>16</sup> This "house" is a circle of ashes, the head *koyala* having sent two of his men for "logs" (i.e. ashes) and for "stones" (i.e. ashes). Each man starts from the "door" in opposite direction to sprinkle the ashes. There is also a "window." They place a plucked duck or a "doll" in their "house" to take care of it, as "their sister."

Twenty years or more ago, *siyuke kwawi* (race) was performed in which the distinctive Tewa masks (see p. 214), the *okuwa sena* (old men), came in at sunrise,<sup>17</sup> encircling the plaza four times,

<sup>15</sup> The man who "wants the dance" will designate any man he wishes to be the dance head and to call upon his kiva mates as dancers.

<sup>16</sup> The same kind of ash house is made in San Juan and the *kossa* are also recruited by trespass into their house.

<sup>17</sup> *Pohaha*, the warrior maid, was impersonated by the war chief (*po'tali*). The war chief has charge of the *pohaha* mask.

and in which the clowns figured. The *kossa* came out from *tewa* kiva and went over the house tops to the plaza. Here they carried on a dialogue like that given below in the account of the war ceremony to prepare for the arrival of the kachina. When the kachina (other than *okuwa* old men) arrived, the *kossa* would throw prairie-dogs and squirrels at them, scaring them and making them withdraw. Four times they would do this. Then the kachina would attack the *kossa* and whip them. This interchange was kept up all day, until the kachina finally went back to their spring homes in the mountains where they were supposed to tell their grandmothers and grandfathers how the *kossa* had scared them with prairie-dogs. . . . this performance was to make the kachina angry in this way, just so they would send rains.

#### WAR CEREMONY

*Kah'bena* was held during one night in the January moon. It was associated with the 'yu'yuki organization (see below) but in what way, was obscure to my informant. When his older brother was young, *kah'bena* was last performed. This older brother, a member of that division of the Bear clan (Pine maternal family) in charge of the mask of Bear Old Man, Sat'ele, the Town Chief, and Alā, the Corn clan chief, were in charge of the ceremony, with Alā its head. *Tewa* kiva was used. In the morning a woman would go to *tewa* kiva and call down that they had to tie up their wood and put it on the kiva roof to dry, for four nights. "That way they knew they would have *kah'bena*." The woman would return late in the morning (about nine) and say, "Sweat in our hands!" (The reference was to the ritual position of sitting with folded arms and closed hands, whereby the hands naturally sweat.) "That way everybody knew about it." On the night appointed any woman who so wished could go into *tewa* kiva. The men of *tewa* kiva sat there waiting for the men of *mona* kiva to come. All the men of *mona* kiva who belong to the winter solstice ceremony (a few *mona* kiva men, varying from two to ten, may not belong to the winter solstice ceremony, these have to sit with the *tewa*

kiva men) descend into *tewa* kiva, each carrying his blanket to sit on. The first man down says,

han *sængidi* kwang nabi senaing nabi kwiyoing.

how happy sitting our old men old old women

The rejoinder is,

*sængidi* ma'.

happy same.

This man sits in the middle of the kiva. The others take seats to form a spiral figure in sunwise circuit which represents the big snake (*peyo soyo*). The last man sitting by the ladder is the *po'ta'i* or war chief. When he takes his seat they begin to sing, the headman (Ala) leading off. All present, including the women, have to sing, singing *singkau'*, men or war songs, to be brave. They sing half the night. At *mona* kiva four or five men would dress as *kossa* (*koyala*), with one man out to listen to the progress of the singing in *tewa* kiva. When the singing nears its end, the *koyala* leave *mona* kiva, stepping very slowly and quietly, and go and stand on the top of *mona* kiva. They begin to descend. Half way down somebody would see them and say, "*Kossa* are coming." The aforementioned greetings are exchanged. Then the *kossa* begin to make fun. "You look ugly! You are big-eyed like an owl!" The *kossa* might say to a woman, or to a man, "You have a big mouth like a frog." The people have to remain very quiet and not laugh, anybody laughing must join the *kossa* ceremony. Meanwhile men and boys will dress up as *kachina* in some borrowed house, the men of the household acting as guards or watchers, so the people at large will not know about these *kachina* and will be taken by surprise. A watcher goes and listens to what is going on in *tewa* kiva. He listens to the *kossa* dialoguing: one *kossa* says "*Meme seno*, uncle, old man, could I see [anything]?"—"All right, you can see it." The *kossa* takes ashes from the fireplace, and with the ashes in his hands quickly passes one palm across the other. "*Tubahai!*" he says (an exclamation of surprise, the literal meaning unknown) "*Mu piwemo pokwingewe*, I see the lakes." Another *kossa* rejoins, "I can't see anything from the Lake." Another says, "You say there is nothing to see, but there is a big cloud from the Lake." Another says, "You say you can



see nothing but cloud, but there is somebody coming out from the Lake." "You say somebody is coming out from the Lake, but it is walking along." "*Tubahai!* It is walking along, you say, but there are two walking along." "You say there are two walking along, but there are six." "You say there are six, but there is a lot of them." "There is a lot of them, you say, they are coming." "They are coming, and everything looks white." "Everything looks white, you say, but everything looks green." "Everything looks green, you say, but everything looks yellow." "Everything looks yellow, you say, but everything looks red." "Everything looks red, you say, but everything looks all colors, white, green, yellow, red, and they are coming very quickly." "They are coming right close at *kamu'late*."<sup>18</sup> "You say they are at *kamu'late*, they are down at *toyopoge*."<sup>19</sup> "You say they are at *toyopoge*, they are at *tobachane*."<sup>20</sup> "You say they are at *tobachane*, they are at *tewa kiva*." By this time the kachina are on top of the kiva. "You say they are at *tewa kiva*, here they are." Then the *kossa* say, "Come in! Come in (*tsu' piwemo'*)."<sup>21</sup> Then the kachina go in and dance, "to make the people happy." The kachina have brought in musk-melon, watermelon, and seeds of melon and corn. After they finish dancing, all of this they leave in the middle of the kiva, for the *kossa* to give to the people, making fun. But still the people may not laugh. Then the *kossa* return to *mona kiva*. The people stay on in *tewa kiva* singing more men's songs until sunrise. Then a Corn clan young woman who has made *kanshi* (corn water) passes it around for all to drink, exchanging terms of relationship, i.e. "my father, my daughter."

This ceremony was kept very secret from the Hopi who were not allowed to be present.

#### KAUTO'PO (Hopi, *powamu*)

*Powamu* is a Hopi ceremony which is related both to the *niman* ceremony and to the *wöwöchim* ceremony. Like the latter

<sup>18</sup> To the northeast, on top of mesa, north of the Gap.

<sup>19</sup> Chief Spring, at foot of mesa.

<sup>20</sup> Gap.

<sup>21</sup> This is an obsolete term, for *pitsuwa'be'e*.

it has a short form and a long initiatory form, which is referred to as whipping the children. The long form is observed only the year the long form of *wōwōchin* is observed. Now for several years, because of the age of the chief of the *tataukya* (Singers Society)<sup>22</sup> who determines whether the long or short form of *wōwōchim* be observed, there has been no observance of the long form; nor, consequently, observance of the long form of *powamu*. What has happened is that every year a few children (Hopi as well as Tewa) have been whipped at Tewa, in a ceremony patterned on the Hopi ceremony, but not held at Tewa when the ceremony in long form is held at Walpi.

The day *powamu* chief has visited all the kivas, including the two Tewa kivas, the mother of the child will take a handful of corn meal and throw it down the hatch of *mona* kiva, saying, "I want my child to be whipped."<sup>23</sup> The kiva chief asks who there will whip the children. Any two children of the Tobacco clan may volunteer, or if no Tobacco clan child is present, any one married into the Tobacco clan. The *e'wōing senā*<sup>24</sup> (masks)<sup>25</sup> belong to the Tobacco clan. Then the Tobacco clan chief<sup>26</sup> has to bring the masks into the kiva. The two volunteers take them and go to the Gap and array themselves. Thence they return and go around the town four times, from which everybody knows there will be the whipping. Every night, for four nights, they go around. . . . The child's paternal grandmother or aunt will take the child to be whipped, except in the case of a Hopi child, when a ceremonial father is chosen as usual. After the

<sup>22</sup> This chief, Hani, died in 1921, and the office remained vacant until 1924.

<sup>23</sup> At Walpi this meal is thrown down by the ceremonial father of the child, the man chosen to function not only at the *powamu* whipping, but to initiate the child, if a boy, into his own society among the four *wōwōchim* societies.

<sup>24</sup> *Senā*, old man, corresponds to *wōye* of the Hopi, the name applied to the ancestral mask of the clan. *E'wōing* is so-called from his call—*é!*

<sup>25</sup> Black with white mark across, representing the Milky Way (*ts'aqkolo*). On the left side is a spray of *guttierrezia longifolia*. On top a *tsempehle* (man feather) which is made of two eagle wing feathers and downy feathers, the end wrapped with cotton and within it some micaceous hematite which means to be hard, not easily hurt. *E'wōi* is not paralleled among the Hopi kachina.

<sup>26</sup> This office has been vacant for ten or twelve years; but a Tobacco man from the house in which the masks are kept, substitutes.

people are assembled in the kiva, the *e'wōing* kachina, come in from the Gap. They circle the kiva four times and come to a stand on the north side. Then a certain kiva member<sup>27</sup> (always the same man) ascends the ladder, relieves the kachina of their yucca blade whips, and leads them down into the kiva. The whipping by the kachina is easier than at Walpi, more perfunctory or formal. But, as at Walpi, all present are whipped, excepting the Town Chief (other chiefs would be whipped) and any aunt who is a Tobacco clanswoman. Besides these differences in the whipping ritual, notable, too, is the absence of *Powamu* chief with his explanatory talks to the children.<sup>28</sup>

#### 'YU'YUKI

'Yu'yuki was a daytime dance held towards the end of February in which the members of the ceremony ('yu'yuki po'porne, Hopi, *yoyo wimi*) used to whip each other, so the ground would freeze and then be wet, likewise so men would be brave and hardy. Recruiting was indirectly through sickness as already noted in the account of the sometime organization of the clowns. 'Yu'yuki ceremony and organization had lapsed before the boyhood of my middle-aged informant. The account suggests similarities with an organization at Jemez of Pecos affiliations.

#### TIYOGEO' OR SEASONAL TRANSFER CEREMONY

*Tiyogeo' yoge'*, summer, meaning "they act as summer," is determined by solar observation by the Town Chief, but the ceremony always occurs during the March or Cactus Flower moon (*yopobipoge*). In 1924 it was about March 15, "late this year," said the Town Chief.

They go into *mona* kiva to make prayer-sticks—Satele, the Town Chief, Alā, the Corn clan chief, and whoever is Tobacco clan chief. The position is now vacant and the other two chiefs

<sup>27</sup> Formerly this function was undertaken by a member of the 'yu'yuki ceremony. See below.

<sup>28</sup> *Kauto'po* is said to have belonged formerly to the Sand clan; but when the chief died nobody took the chieftaincy. Posumi, the Sand clan chief, would not take it, he took only the winter solstice ceremony.

are filling their own pipes. In the morning Town Chief notifies the Corn clan chief and the Tobacco clan chief. "They wash their heads and they take their basket and feathers into the kiva. Then after they go down they have first to drink" [i.e. smoke, in ritual drink, meaning to give drink to the clouds, is always said for smoke]. Town Chief has to put up his corn fetich (*konlua'*); then Corn clan chief makes the road from it to the ladder. [This is not thought of as an altar (*owing*)]. "Then they drink again." Then the Town Chief makes the medicine water. Then they start work on the prayer-sticks. Each has to make eight or rather four pairs. They are the standard Hopi sticks. If anybody comes in to the kiva while they are making the prayer-sticks he has to remain and be one of those to deposit the sticks. But if nobody comes in, the chiefs have to deposit the sticks themselves. The sticks are deposited in the four directions—at the spring four miles or more to the north, *pili'po'o*; at Sun spring (*tawapa*), below the mesa to the west; at *mucho'*, six miles to the south where Sun's house is (a shrine, *kaiyate'*, on top of the ridge); at *wa'kamit'aiky'eedi*, four miles distant, east of the ruin *sykyatki*. This last shrine represents *chéwage pokwingé* (lake), the lake of emergence, *Chéwage* being the name of the town the Tewa migrated from, in New Mexico.

After the prayer-stick depositors have returned, the ceremony closes, "that is the last of it," except that the Town Chief [i.e. the head of the ceremony] stays on in the kiva four more nights.

#### T'IBIT'ANT'OLOAN OR SUMMER SOLSTICE CEREMONY

*T'ibit'ant'oloan* means "they work for the sun."<sup>29</sup> (*t'an*, sun, *t'olo*, work). The Town Chief watches the sun at a regular place, during June, and the ceremony occurs four or six days after the Hopi summer solstice ceremony. In 1921 the Hopi ceremony fell on June 20; the Tewa, on June 26. In 1923 the Hopi ceremony was on June 22, the Tewa, on June 27. The Town Chief notifies the Corn clan chief, the Tobacco clan chief, the Cloud clan chief, and two men of the Bear clan (*tenyo*, pine, maternal family) who

<sup>29</sup> K'elang, the Sun watcher, has really no effectual sun watching function at all. The office, I take it, is merely an imitation of the Hopi office.

have in their keeping the Bear mask<sup>30</sup> which if ever the Tewa migrated again would have to go in the lead. In announcing the ceremony the Town Chief says, "We will sit tomorrow." In the morning the men wash their heads and take their feathers to the maternal house of the Town Chief. Then Town Chief puts up "his mother" and Corn clan chief makes the road from her to the door. They "drink." Then they set to work on the prayer-sticks. Each has to make the standard double one, which is however exceptionally long, measuring, not from the base of the thumb to the tip of the middle finger, but from the wrist. This extra length is for a long summer, "so the Sun will go slowly back to his house." For the same end the Town Chief also makes a particularly long feathered string or "road." After completing their sticks, the makers have four songs to sing for the summer crops. Then they have to look for four boys to deposit the sticks, boys who are waiting about outside to be summoned. Each boy is given a double prayer-stick, except the fourth boy who receives three double sticks, also the feathered string. These he has to take to *wa'kamil'-aiky'eedi*, for the Sun. The other boys go to the other places cited, *pili'po'o*, *tawapa*, *mucho'*, depositing for the Clouds. These three boys have to go and come as fast as they can; but the fourth boy, although going out fast, returns slowly, at a walk. "The sun has to go back slowly." As soon as the first three boys have returned, food is brought to the kiva by the women of the households of the several men and they eat. Then all leave except the Town Chief who waits for the messenger to the Sun. He returns bringing flowers he has picked on his way to the Town Chief who will put them away to use in the medicine water of the winter solstice ceremony, "so there will be more flowers the next summer. . . ." The four following nights the chiefs must remain continent.

#### TANPEŃ (SHUMAİKOLI OR YAYA)

*TanpeŃ tibil'oloaŃ*, "they work—?" this ceremony is called. Sunwatcher (K'elang, Cloud clan chief) is the chief. He calls out that in four days<sup>30</sup> they are to have the ceremony. The members

<sup>30</sup> See Fewkes, J. W. Hopi Katchinas, pl. LXII, Ann. Rep. XXI, Bur. Amer. Ethnol.

(including women) go to K'elang's house and for half a day make prayer-sticks, to be deposited in the usual four places.<sup>31a</sup> In the afternoon the women members and the wives of members bring food. That is all there is to the ceremony unless the chief of *tanpen* wants to have the *shumaikoli* come out.<sup>32</sup> In this case there is a public dance which is referred to as *shiu'yaya'tix* (Zuñi, *yaya*, dance). The chief chooses a man, any man, to assemble girl dancers, and take them into the kiva, either kiva. In the afternoon four or five men go into the kiva to sing for the girls. They all come out, the girls making a circle. A man goes and gets young men to dance, alternating them with the girls in the circle. First out come the women members of *tanpen* carrying meal in baskets, and making the "road"; they are followed by the men members singing and escorting *shumaikoli* into the middle of the dance circle. In turn the six *shumaikoli* are brought out from *mona* kiva by different sets of men and women. In the evening the six *shumaikoli* with a man and woman to each, and with the chief (K'elang) in the lead, come out into the plaza which they circle four times and then escorted by the men only, go "home" i.e. to the Gap, where they undress.

#### HARVESTING FOR TOWN CHIEF WITH RITUAL BY TOWN CHIEF FOR THE GENERAL WELFARE

In the calendar as described to me systematically on First Mesa there was no reference to these observances; but they were

<sup>31</sup> Formerly, thirty years or so ago, the announcement was sixteen days in advance, and the retreat into kiva was as usual observed the second half of the period, with a dance on the final day. On this day they probably initiated. This long ceremony is referred to as *tanpen libil'okwode*, they have gone in, i.e., been initiated. Members of the society who are cured of sore eyes have to take part once in the long ceremony. Non-members who are cured may take part in the annual ceremony. This was the rule under K'osha, K'elang's predecessor. Since then they have had no initiation although almost all the Tewa have been connected with *yaya* ceremonial. "But now (1924) they are talking about putting in new members."

<sup>31a</sup> *Ka'mulata'lege* or the gap, for the east; the spring *kwanpoge*, north; Sun Spring, west; Chief Spring, south. These are the regular places for Tewa prayer-stick offerings.

<sup>32</sup> The *shumaikoli* came out in 1916, in 1921, and in 1923. When the *shumaikoli* came out in 1921, on August 20, a certain Tobacco clansman had wanted to have the dance. He had had sore eyes and in his own house been treated by K'elang. He did not join the society but paid them with food, etc.

noted in the journal kept for me by my Tewa informant, and I will give the description in his words.

October 22. The Tewa Chief [Town Chief] is having his working party. All the Tewa people have their wagons and burros ready early this morning. Then as soon as all are ready, they go to the field. The girls get there after a while. Then all the people work. The old men and the chiefs stay and just smoke. The Town Chief stays in his house all day, taking out his Corn Mother and sitting with her all day. Everybody is busy all day. When they get through, the boys have a foot race. [Racing in the fields is mimetic magic for fertility.] Then the people are told by the War chief to go home. When they bring in the corn to the Town Chief, they go into his house and say a prayer to his Corn Mother. Town Chief stays up all night asking for snow for the winter.

October 23. In the morning the Tewa Chief [Town Chief] puts down a "road" [the feathered string] on the east side of town. Then the Tewa people get meal and go to where the "road" is. They pray to the Sun and then come back on the "road." The object of that road is to have a long life. The people have to go out and pray to the Sun every morning for four days. After that, every morning whoever want to can go [i.e. it becomes optional]. Of course the boys can go down to the spring and take their bath, to become strong and not get old very quickly.<sup>33</sup>

#### HOPI AND NORTHERN TEWA COMPARISONS

In the winter solstice ceremony the outstanding distinctions appear to be the appearance of kachina (*ahulani*) in the Hopi ceremony as against the lack entirely of kachina in the Tewa ceremony, and the appearance of *two* chiefs in the Tewa ceremony, instead of a single chief. It seems probable that here in the two chief system together with the two kiva system of Tewa we have survivals of the two cacique system or double Town chieftaincy of the Northern Tewa and of their double kiva system. In

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<sup>33</sup> On October 30 and 31 the journalist describes a like "working party" for the Hopi Town Chief, and like "road making" ritual by the Hopi Town Chief. In conclusion, the night of October 31, "The chief and the man next to him have to stay up all night and smoke to ask for snow and rain, in order to have more crops next year."

fact the title of the Town chief at Tewa, *poāntoyo*, is obviously the same as that of the Chief of the Summer People on the Rio Grande, *p'o'atunyo*,<sup>34</sup> *poatuyo*,<sup>35</sup> *po'atoyo*.<sup>36</sup> As for the chieftaincy of what would be the other moiety, the Winter People, in the North, this is represented, at Tewa, I take it, by Posumi, who goes into *tewa kiva*,<sup>37</sup> at the solstice. At San Juan the two Town Chieftaincies also make separate retreats at the winter solstice, for one day.<sup>38</sup> In this connection we may note that among Hopi<sup>39</sup> and at Zuñi the ceremonial moiety system is suggested, but, because it affects the kiva system little, if at all, the system is not nearly as conspicuous as on the Rio Grande. Among the Northern Tewa, corresponding to the moieties and the double Town chieftaincy is the seasonal division of the calendar, summer being accounted from March to November, winter, from November to March, and in March and in early November there is a seasonal transfer ceremony when the charge of all the people is transferred from one Town chieftaincy to another. The March ceremony of Tewa is plainly enough the transfer ceremony from winter to summer of the North. What has become of the November transfer ceremony? Something of it is suggested by the ritual performed by the Town Chief the day of his "working party," i.e. when his crops have been brought in for him by the people, and the night following when he prays for winter snows. Still this ritual is

<sup>34</sup> Harrington, J. P. The Ethnogeography of the Tewa Indians, 61-2. Ann. Rep. XXIX (1916), Bureau American Ethnology

<sup>35</sup> Bandelier, A. F. Final Rep. Pt. I, 302. Papers Archaeological Institute of America. Amer. Ser. III, 1890.

<sup>36</sup> Parsons ms. At San Juan he is also called *payoge sendo*, summer old man. On First Mesa *payoge* is an obsolete term used only in the winter solstice songs. *Yoge* is the current word for summer.

<sup>37</sup> His younger brother, Talaiaiti'wa, is chief of *tewa kiva*.

<sup>38</sup> The Northern Tewa term for the ceremony is obviously the same, *t'q'aire*, translated for me as "Sun lives now." During four days Sun is supposed to go to report to the Mother on what has been born during the year—"people, animals, plants, everything," i.e., the Northern Tewa celebration is also one of reproduction.

<sup>39</sup> For example, at Oraibi, from the winter solstice to the summer solstice the Flute priests saw to the prayer-sticks of the sun, while from the summer solstice to the winter solstice the sun was under the care of the *soyal* (winter solstice ceremony) priest. (Voth, H. R. "The Oraibi Powamu Ceremony," p. 152. no. 4. Field Columbian Mus., Pub. 61, Anthropol. Ser., vol. III. no. 2, 1901.)



sporadic, as harvesting for the Town Chiefs is done only when "somebody" suggests it, and, as like ritual is performed by the Hopi,<sup>40</sup> the Tewa in this case seem to be merely following Hopi custom. On the whole, we infer that the winter seasonal transfer ceremony has lapsed together with the Winter chieftaincy proper.

The summer solstice ceremony of making prayer-sticks for the Sun is at Tewa an affair of the Town Chief aided by the other chiefs, rather than, as at Walpi, of one maternal family in charge of the ceremony. Here we touch upon an outstanding difference between West and East in their ceremonial structure. In the West<sup>41</sup> the ceremonies are "handed by" i.e. belong to, a maternal family; in the East, they are in charge of chiefs, theoretically at least nonhereditary. Now at Tewa the hereditary principle, together with a developed clanship system, has been taken over from the Hopi, chiefly succession is by inheritance within the maternal family, but the actual administration of the ceremonies points to the earlier society system of the East.

In the East there is a summer series of rain ceremonies or retreats which are performed by all the ceremonial groups in turn. This series is performed by the rain priesthoods of Zuñi. Among the Hopi and Tewa of First Mesa alone the series does not occur, and presumably this part of calendrical structure lapsed among the Tewa because of Hopi influence.

To this the Tewa *shumaikoli* ceremony is an exception; it is organized strictly along Hopi<sup>42</sup> lines, i.e. it is a ceremony whose fetiches (masks) are in charge of one family, a member of which

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<sup>40</sup> There are "working parties" by all for others than the Town Chief. In the spring of 1925 there is to be a *supkyausni* "all kinds" including boys and girls. Zuñi, Navaho, "everybody," to plant for the Kachina Chief. The proposal for such parties has to be made a long time in advance "so they can think about it."

<sup>41</sup> Zuñi has a mixed system.

On rereading "Winters Solstice Altars at Hano" I note that in 1898 Anobe of the Tobacco clan was both Town Chief and winter solstice chief of *mona* Kiva where he was assisted by Satele of the Bear clan, since become his successor. So that even recently this Hano chieftaincy has not been handed within the same maternal family.

<sup>42</sup> There are *shumaikoli* masks at Walpi but no ceremony. I infer that the masks are thought of as generic kachina masks.

From linguistic indications *shumaikoli* was in origin Keresan.

controls the ceremony and initiation into the ceremony. As noted the society, or rather its chief, cures sore eyes.<sup>43</sup>

What in the Walpi ceremonial calendar is absent from the Tewa? All those Hopi ceremonies which are or were "handed" within a maternal family—the Snake and Flute ceremonies, the four ceremonies which constitute the November *wōwōchim* ceremony, and the three women's ceremonies, *mamsrau*, *lakunte*, *waköl*. Lacking likewise is the Walpi war ceremony which occurs four days after the winter solstice ceremony, and in which the War chief makes prayer-sticks "to strengthen the house." These prayer-sticks are to be seen in the Tewa houses; but they are made at Walpi, not by the Tewa war chief<sup>44</sup> (Tewa, *po'tali*; Hopi, *kalehktaka*) of whose functions today there is little to be learned directly,<sup>45</sup> except that "when sickness is heard about" i.e. epidemic, he makes special prayers for the people (an epidemic being usually attributed to witchcraft).—We may note, too, that the office of Crier chief (Hopi, *chaakmongwi*; Tewa, *tokei*) is not found at Tewa.<sup>46</sup>

The Tewa winter games and springtime races appear not to differ from the Hopi games and races. Hockey played ceremonially for fertility (the ball is stuffed with seeds and it has to be played until it bursts) is a characteristic Northern Tewa game. This ritual hockey is played on First Mesa and I surmise it was intro-

<sup>43</sup> The eyes of the masks are very small and in English the kachina are referred to as the Blind kachina. At Zuñi it is said that a pregnant woman should not look at a *shumaikoli* lest her child be born blind.

<sup>44</sup> He is Tankwæn (Sun tail) or Choyo (Hopi nursery word for tail, *sájō*) of the Cottonwood clan. His predecessor was Tanyemu, his mother's brother.

<sup>45</sup> Inferably, however, he has the usual policing or protection function of war chief or captain. In the spring of 1924 some of the children who had just been initiated into *powamu* were showing to the uninitiated children how the kachina acted. So the people took the matter to the chiefs of Walpi who decided to send out the bug-a-boo kachina, *cha'bio*, instead of having their war chief discipline or sermonize. Honi, Crier chief, impersonated *cha'bio*. He had a man fastened to his rope to show the children how *cha'bio* would drag a child away. When *cha'bio* and his mock captive came to Tewa, Tankwæn came out and asked to have the captive released. "I don't want to have any one carried away from my village," he said. In case of "big trouble," it is said definitely, Tankwæn would make the people behave."

<sup>46</sup> There is a Crier (*tokędi*) for secular affairs at San Juan; but there is no ceremonial crier among the Northern Tewa.

duced from Tewa. At Zuñi and by the Keres it is not played. The elaborate planting program of the Hopi which is determined by solar observation by their Sun watcher and punctuated by "working parties" by certain Hopi chiefs, the Tewa have entirely adopted, their "working parties" set by the Hopi rules.

As already stated the kachina cult flourishes at Tewa; but there is not at Tewa any independent *niman* kachina ceremony, the most systematically organized Hopi kachina performance, and Tewa kachina initiation ritual is plainly modelled on Hopi *powamu* ritual. Nor are there many independent Tewa kachina. This comparative meagerness in the kachina cult corresponds with the cult's meagerness or poverty among the Northern Tewa. The situation on First Mesa is an argument for the theory that the kachina dance cult is a marginal trait among the Northern Tewa, against the theory that the cult is so slight nowadays because it was formerly suppressed by the Friars. Whatever the reason of the Tewa split two centuries or more ago, the immigrants did not have to safeguard their kachina for they had little or no kachina dance organization to conserve. Some kachina ritual and myth they probably had. Four masks they claim to have brought with them. Tobacco clan old man kachina (*sa tarwa sena okuwa* i.e. *eowi*); *yeeny*<sup>47</sup> or *nykwati*<sup>48</sup> (the "old man" of the Town Chief's division of the Bear clan), *pohaha*, the girl warrior of the Cottonwood clan, and Bear clan old man who made the "road" for the people in their migration, and was the first to come up from the Lake of Emergence, and is the head of the kachina or *okuwa*, like the others a rain maker, not a doctor. Curiously enough this Bear mask is the same as that of the mask of the Jemez Fire society,<sup>49</sup> one of the two curing societies general

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<sup>47</sup> A First Mesa Tewa identified the picture of *djeng sendo* of Santa Clara, their kachina old man or chief, with *yeeny*, whom the Hopi call *he'he'u*.

<sup>48</sup> *Yeeny* and *nykwati* are distinguishable. "*Yeeny* is always happy," and he dresses better than *nykwati* who wears a sheep skin and cow hoofs.

<sup>49</sup> See "Hopi Kachinas," pl. LXII. The black mask is made, not of hide, but of yucca brush—on one side is a squash blossom made of cat-tail, with a downy eagle feather; on the other side, six blue-green prayer-sticks. Red yarn on both sides; eagle tail feather fan at the back. On his feet are real bear paws and over his back a bear skin. He carries the little netted water gourd the kachina drink from, with grasses

also among the Keres and the Northern Tewa. Among all these, Bear is the Doctor *par excellence*. Here let me reconstruct what I think took place in connection with the Bear mask of Tewa. I suggest that this Bear mask was that of the *pah pufona* or Fire curing society of the Tewa immigrants. (There are *pah pufona* today at Santa Clara). Then on First Mesa that society was transformed from a curing society<sup>50</sup> of a type unknown to the Hopi into their familiar type of maternal family trusteeship. From the Bear mask and ceremony the Bear clan or maternal family or rather one of the two maternal Bear families (the other "hands" the Town chieftaincy) may have been named.

The Tewa kachina live under a spring, *kisiwa*, on Black Mountain (*gumatü'tö'kwi*), to the northeast of First Mesa, whereas the Hopi kachina, or most of them, live to the west, on San Francisco Mountain. To *kisiwa*<sup>51</sup> July pilgrimage is made every four years, i.e. sporadically, just as at Zuñi there is a quadrennial pilgrimage to *kotuwela*, the under lake home of the *koko* (kachina), or at Taos an annual August pilgrimage to the lake of the *latsina* or as in time of drought the Tewa of New Mexico send prayer-stick offerings to Mt. Tsikomo'.

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from the top from *toyopoge*, chief spring, his special spring, which his guardian has to keep clean. The water represents the Lake, *pokwinge*, i.e., the Lake of the Emergence. The spruce tree he carries was his ladder, when he came up from the Lake.

<sup>50</sup> The obsolete Tewa term for doctor is *kich*, bear; and formerly, according to my informant, there was a doctor society or *wolokani* (medicine-giving) *po'porne* (ceremony), the songs of which are still known, known to my informant, the custodian of the Bear mask. Incidentally are the terms *po'porne* and *pufona* (see text) related?

<sup>51</sup> At other times *takinobi*, a shrine on the mesa top, north of the Gap, represents *kisiwa*.

## THE CATTLE COMPLEX IN EAST AFRICA\*

BY MELVILLE J. HERSKOVITS

### I

THE problem of the diffusion of cultural traits, which has occupied the attention of ethnologists during the past generation, has brought with it the concept of the culture-area. The ideas developed concerning this concept, and its place as an explanation of the means of diffusion, are, principally, two in number. The first of these is that of a German group of ethnologists, with whose theories the name of F. Graebner is most prominently connected. The principles of this school have been applied by Graebner to the Melanesian material,<sup>1</sup> by Ankermann to the African,<sup>2</sup> and, more recently, by Father Schmidt to the South American data.<sup>3</sup> Following the Graebnerian method, certain areas, or "kulturkreise," have been mapped out in each of these continents.

The American school, whose members have advanced the other culture-area concept, have not hitherto attempted to apply the idea to other than American data. Culture-areas have been denoted and utilised in the comparative study of American Indian culture. The outlines of such areas have only been partially applied to South America, efforts having been particularly centered about North American cultures, until today there is a recognized division of the continent into well-defined areas. It has, however, been felt that the culture-area concept must be applicable to other regions, that it must be applied more widely before it can be regarded as an established working principle.

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<sup>1</sup> *Zeit. für Ethnologie*, vol. xxxvii, pp. 28-53, *Kulturkreise und Kulturschichten in Ozeania*; *Anthropos*, vol. iv, pp. 726-780, 998-1032, *Die melanesische Bogenkultur und ihre Verwandten*.

<sup>2</sup> *Zeit. f. Eth.*, vol. xxxvii, pp. 54-84, *Kulturkreise und Kulturschichten in Afrika*.

<sup>3</sup> *Zeit. f. Eth.*, vol. xlv, pp. 1014 ff., *Kulturkreise und Kulturschichten in Südamerika*.

Before such application can be made, however, it would be well to consider the two theories of the culture-area as advanced by the respective schools. The "culture-area" and the "kulturkreis" are not the same thing, and must be differentiated.

## 1

The kulturkreis, as developed by the Graebnerian school, is based largely on the anthropogeographical work of Ratzel. It is conceived as the area, wherein there prevails a given culture-complex,—where all the cultural elements of this complex are to be found in the most, approximately, pure form. Graebner remarks that, while<sup>4</sup>

absolute unity of cultural conditions is not characteristic of these (kulturkreise) . . . or even less, absolute continuity of all single elements, . . . there is the simple fact, that a given complex of culture-elements is characteristic for a given region and in the main is restricted to it.

The determination of the traits forming this complex, however, is made quite arbitrarily. There is no attempt to find the basis for their association and the assumption of American ethnologists, that<sup>5</sup>

. . . unless we can find some other basis for this association of traits in a culture, such traits have no functional or necessary relations to each other. . . .

is replaced by one which demands these non-associated traits whose very lack of relation is taken to strengthen the case for unity of origin. Since Dr. Graebner has essentially worked in the domain of material culture and with museum materials, it is not surprising that he has developed his criteria of form (quality) and quantity to apply to the units of his complexes.

The element of continuity in present-day distribution of traits is not essential in the opinion of these ethnologists. The concept is based on entirely different ideas. First, there is ascertained a region in which certain culture-traits go together,—the complex mentioned above. Then the distribution of each of these traits is sought. The connection in which they appear,—the use to which

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<sup>4</sup> F. Graebner, *Methode der Ethnologie*, p. 132.

<sup>5</sup> Clark Wissler, *The American Indian* (2nd ed.), p. 384.

they may be put, or the meaning the elements may have for the members of the tribes in which they are found, does not concern the student. The Graebnerian would argue that two traits similar in form had retained their outward aspects while different psychological content had accrued to them; only the similarity would be important as denoting unity of origin. A crutch paddle is a crutch paddle, whether it be found in Melanesia, South America, or Indonesia. Indeed, in the Graebnerian sense, these paddles must be of identical origin, since here<sup>6</sup>

ist die Form weder durch den Zweck des Gegenstandes, wie die zahlreich vorhandenen anderen Formen zeigen, noch durch das Material noch durch irgendetwelche übereinstimmenden lokalen Naturverhältnisse gegeben; . . .

The elements in these paddles which are compared are not, according to Graebner, such as might have been invented independently: as is remarked above, they are completely outside such possibility, since the units of measurement are not dependent on the three causes mentioned. Indeed, a theme of independent origin<sup>7</sup>

. . . müsste also schon auf mystische, durch ähnliche Natur oder der Kulturumgebung bedingte Geistesanlagen rekurreren, denen keine Wissenschaft nachkommen kann.

And further Graebner notes that it is only with the uniting of the criteria of form to the correspondences of quality that the culture-complexes will be most fully unravelled.

As used by the Graebnerian group, the criteria utilized in the formation of an area seem essentially artificial. Thus, Dr. Graebner rejects the possibility that a single cultural trait might travel by itself,—this, he maintains, is ridiculous,—“kulturgeschichtliches Nonsense,”<sup>8</sup> for only a complex of traits can be diffused. But it is known from the American data that a single cultural trait may move hither and yon, and, indeed is often found in what, to the arbitrarily-minded student, would seem quite a foreign culture.<sup>9</sup> But since the Graebnerian *kulturbereich*

<sup>6</sup> Graebner, *Methode*, p. 145.

<sup>7</sup> *Ibid.*, p. 145.

<sup>8</sup> *Ibid.*, p. 116.

<sup>9</sup> This has been strongly brought out by Dr. R. F. Benedict, in her study of the guardian spirit idea in North America.

is a fixed entity, the intrusion of a foreign element into which, would seriously interfere with its logical value, the members of the group account for such extraneous elements in most ingenious fashion, as the remains of other, older culture-complexes displaced by later invasions of other complexes.

For the Graebnerian school claims for itself the term "historical." Its members feel that one of the handicaps of ethnology is the lack of historical perspective. Of course, this is recognized as one of the great difficulties under which the student of primitive social development works. Graebner remarks<sup>10</sup>:

Allen bisher geltend gemachten Gesichtspunkten fehlt noch das eigentlich historische Merkmal, die zeitliche Tiefe.

He recognizes that one of the problems which urge most strongly for solution is the manner in which historical development can be uncovered. The principle he sets forth for the solution is interesting:<sup>11</sup>

Wo immer das Gebiet einer Kultureinheit oder ein besonderer Formenkreis einer solchen Einheit durch einen andern Komplex auseinander gerissen wird, da ist die letzterwähnte Kultur, wenigstens in diesem besonderen Gebiet, die jüngere; ebenso da, wo ein Komplex von einem andern überlagert wird, d.h., wo die ehemalige Existenz der einen Kultur durch rudimentäres Vorkommen ihrer Elemente innerhalb eines geschlossenen Gebietes einer andern Kultur bezeugt wird, die überlagernde.

In other words, Graebner here proposes general rules whereby historical development may be unravelled. But it appears that historical development is of a type that does not always follow set rules or principles. It would almost seem that in this rule, as in that for the determination of a *kulturkomplex*, Graebner sets up standards which may be termed arbitrary.

Even though we grant, however, that the unrelated elements constituting the *kulturkomplex* would strengthen the cause of the diffusionist school by the very fact of their independence, and that we need not heed the various psychological appeals they might make to their respective peoples, the traits selected by the Graebnerians to establish their case have been unfortunately

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<sup>10</sup> Methode, p. 140.

<sup>11</sup> *Ibid.*, p. 140.



chosen. It does not necessarily follow that just because Anker-mann, e.g., finds secret societies, masks, cannibalism, cane and wooden shields, xylophones, pan-pipes, bark-cloth, wooden drums, human figures, and other similarities to the Graebnerian East-Papuan culture in the West African region,<sup>12</sup> and other elements resembling those found in the other Graebnerian cultures of Oceania, that these must be the same as to origin. Yet Graebner asserts:<sup>13</sup>

Selbst wenn man sich auf den Standpunkt stellt, dass analogen Kulturelemente ursprünglich auch analogen Kultureinheiten angehört haben müssen, wäre es an sich natürlich falsch, anzunehmen, dass dies gerade die in dem oder jenem Erdteil nachzuweisende wäre, weil ja die Möglichkeit vorliegt, dass diese selbst ein historisches Konkretionsprodukt ist.

Thus, the Carib-Arawak culture of South America, which seems to him the more central and younger cultural complex, is associated with the similarly younger Melanesian culture. The culture of the Tierra del Fuegians at the outer edge of the continent, and that of the isolated Bororo in the Amazon basin region, are to be classed with the transition-complexes between the older Australian and the younger Melanesian cultures; this latter because of the following resemblances, which are enumerated: spear-thrower, bark-girdles, penis-coverings, gable-roofed houses. The complexes are identical,—hence, the cultures must be of single origin.

The culture-traits utilized in these expositions of the *kulturreise* are seen to be relatively simple. It does not stretch the imagination too far to conceive the possibility, e.g., of three independent discoveries of the use of bark-cloth where trees of the proper sort are at hand. Indeed, it will be found that, objectively considered, the bark-cloth of Africa is not the bark-cloth of Melanesia or South America. The same is true of canoes. Given navigable water, is it so difficult to imagine three independent discoveries of its utilisability as a highway? Again, it must be considered that canoes may be found where bark-cloth is unknown, or cannibalism where gable-roofed houses are not to be seen. It is the very simplicity of the units of the *kulturkomplex*,

<sup>12</sup> Zeit. f. Eth., vol. xxxvii, pp. 71-72

<sup>13</sup> Methode, p. 149.

and the capricious distribution of each unit, as compared with that of any other, which makes the Graebnerian assumption of unity of origin so unconvincing. It is interesting to note the extent to which Ankermann, in compiling the data on which he bases his *kulturkreise* in Africa,<sup>14</sup> confines himself to the realm of material culture. It is true that he notes the distribution of circumcision, body-mutilation, and the knocking out of teeth. Of social organization, he remarks:<sup>15</sup>

Die soziale Organisation der afrikanischen Völker is leider nur so bruchstückweise bekannt, dass sich auch nicht annähernd ein klares Bild der geographischen Verteilung der Gesellschaftsformen gewinnen lässt; ich muss daher davon vollständig absehen.

But, had information been available, it would have been quite conceivably noted in much the same fashion as was the evidence of circumcision-ceremonies,—that they were merely present or absent, was accounted sufficient to establish historical relationship. For the rest, Ankermann notes the distribution of types of dwellings, shields and weapons, materials from which clothing is made, musical instruments, basketry, and, cursorily, tobacco pipes, the poison-ordeal, cannibalism, domestic animals, and cultivated plants. It is from the above enumerated traits that he reaches his conclusions as to the existence of the two *kulturkreise* in Africa.

In their employment of the criteria of quality (or form) and quantity in the determination of the identity of origin of cultural factors,<sup>16</sup> the Graebnerian school have fallen victim to a logical fallacy growing out of their preponderant interest in material culture. The application of the qualitative criterion is first made in a given case,—an attempt is made to discover in how many elements an object under consideration resembles a similar one of another region. Its shape, the way in which it is made, and the like, are all taken into account. And accessory criteria,—as, e.g., canoes made the same way *and* of the same material in a different region,—are further adduced to make the qualitative criteria

<sup>14</sup> Zeit. f. Eth., vol. xxxvii, pp. 56 ff.

<sup>15</sup> *Ibid.*, p. 71.

<sup>16</sup> Cf. Lowie, Jour. Am. Folk Lore, vol. xxv, pp. 24 ff., for a discussion of these criteria.

as striking as possible. Then, according to their method, there must be applied the criterion of quantity. But, in the realm of material culture, the qualitative and quantitative criteria are much the same. The number of portions of a paddle similar to another paddle, and the ways in which these parts are similar, are, after all, only two aspects of the same thing.

In the application of these principles to the non-material elements of culture, the same method and reasoning is utilized. Totemism is totemism, if it corresponds in its objective manifestations. Thus, applying the principle to the North American data, we should find that the two-phratry system of the Iroquois and the peoples of the Northwest coast would be accounted the same,—the fact that the two play essentially different parts in the lives of the tribesmen of the two regions must be quite disregarded as not important. The mere existence of cattle in the different regions of Africa would of itself be presumably significant for the establishment of identity in the Graebnerian sense; for the different attitudes of the peoples toward their cattle, and the different uses to which cattle are put, or the differing customs which go with the existence of cattle, which change from region to region, seem to make no difference to the Graebnerian. But the apparent outward similarity of these traits does not necessarily argue that their historical background is the same, as has been pointed out elsewhere. Dr. Lowie, in his discussion of Graebner's attitude toward the theory of convergence of culture-traits, cites a number of instances where apparently identical cultural elements are not really the same.<sup>17</sup>

Having postulated their criteria of identity, the "ferninterpretation"<sup>18</sup> of which the school is fond, becomes immediately utilizable. If two elements of culture, material or non-material, are logically identical when their outward similarity is established, the element of distance can be disregarded. It goes without saying, that if these elements be the same, they are the same wherever

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<sup>17</sup> L.c., pp. 32 ff. Cf. also Boas, rev. of Graebner's "Methode," *Science*, N. S., vol. xxxiv, p. 805, and Sapir, *Time Perspective in Aboriginal American Culture*, pp. 38-39.

<sup>18</sup> Graebner, *Methode*, pp. 62 ff.

they are found. If one adds to this the idea of the culture-complex, in which a number of identical elements are found together, the distance difficulty becomes even more negligible. While it must again be admitted that in the case of more complex cultural units, as, e.g., a language, or a machine as intricate as those used in some of our modern mills, close similarity may be conceded to posit identical origin, it does not follow that the more simple elements may be regarded in the same way. A modern spinning-machine, if found in the heart of Japan, after all connections with the West were wiped away, would only have to be seen, to convince the student that the cultural influence of the Western machine civilization had been present. But the principle of the limitation of possibilities in inventions would seem to forbid the extension of the concept to simpler articles of use, or to cultural units of social organization, religion, and the like.<sup>19</sup>

The criteria of relationship, however, must not be utilized, according to the Graebnerians, when used for comparing the cultures of different areas of the earth, without regard to the relative age of the units of comparison. For since culture-complexes move from place to place, not always totally displacing the earlier complexes, the historical perspective, in Graebner's sense of the term must be taken into consideration:

Abgesehen von der sehr verschiedenen Reichhaltigkeit der Kulturen, überhaupt ist deutlich, dass die jüngeren, verhältnismässig spät in die Geschichte einer Gegend eingetretenen Komplexe ihre volle Struktur und den vollen unsprünglichen Bestand ihrer Elemente im ganzen besser bewahrt haben werden als die älteren, in Laufe langer Zeit nicht nur räumlich beschränkten, sondern auch am längsten fremden Einflüssen ausgesetzten und—bei Voraussetzung eines Zusammenhanges mit fernen, gleichaltrigen Kulturen—am längsten der natürlichen Variation unterliegenden.<sup>20</sup>

Thus the quantitative criterion must be used with the restriction that the older complexes may have been changed somewhat,—or, to put the case somewhat differently, the criterion of quantity stands, even if the distribution of traits be not as full as would be

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<sup>19</sup> For a discussion of the principle of limited possibilities see the article by A. A. Goldenweiser, *Jour. Am. Folk Lore*, vol. xxv1, (1913), pp. 259-290.

<sup>20</sup> *Methode*, pp. 144-145.

expected, provided these traits may be logically conceived as belonging to an older cultural movement.

We find, then, that the *kulterkreis* is the area in which the *kulterkomplex* exists. It is plotted by noting on the map the distribution of certain traits, and is found within the lines of coincidence of these trait-distributions. It is not geographically continuous, of necessity, but may take the shape of "islands" inside another culture-area. It sometimes happens, however, that there are so-called "extraneous" culture-elements which intrude in the area. And we find Graebner noting that:<sup>21</sup>

Keine weit ausgedehnte Kultur wird ihr ganzes endgültig besetztes Territorium als Heimat beanspruchen können. . . .

It is here that the concept of stratification is called into use. It is not the purpose of this essay to consider this concept, but it is utilized by Graebner to account for the fact that these extraneous elements do persist, and, by means of it, they are relegated to a former culture-stratum,—an older one which has been overwhelmed, to a greater or less degree, by the movement of the younger. These strata are judged as to age in such a way that

die jüngsten Komplexe der Einfallsporte zunächst sitzen, die ältesten in die entlegentsten Teile der betreffenden Erdteile zurückgedrängt erscheinen.

That most of the elements of the older culture have disappeared makes little difference. That they might logically have been there is sufficient,—they have merely been wiped out by the later wave. Thus, in Ankermann's consideration of the African material, we find that the West African culture is derived from the East Papuan and Indonesian cultures, having come, it is claimed, by way of Zambesi and Madagascar. Culture-waves from the East are posited as having swept into West Africa by this route, each wave leaving its series of traits. And so we read:<sup>22</sup>

Man kann sich das wohl kaum anders erklären, als durch die Annahme, dass diesselben Kulturwellen, die in Ozeanien nur über einen Teil, über einzelne Inselgruppen hingegangen sind, in Afrika stets das ganze Gebiet der westafrikanischen Kultur überflutet haben; . . .

<sup>21</sup> *Ibid.*, p. 141.

<sup>22</sup> *Zeit. f. Eth.*, pp. 73-74.

But when he finds that the elements of this culture are not present in Nyassaland and the Zambesi region, through which this migration must have occurred, he merely remarks that there have been superimposed on the earlier layers, later strata which have completely covered the elements that made the cultural bridge for the West African area.

This, then, is the Graebnerian concept of the *kulturreis*. It is built up as the territory in which is to be found an arbitrary series of units. Those who have worked it out are not interested in the psychological relations of its cultural elements to the other elements of the culture found in it, but rather in the historical connection of the traits selected to compose the *kulturkomplex*. It is, perhaps, in this that we find one of the main points of distinction between the *kulturreis* and the culture-area, to a consideration of which we now turn.

## 2

The culture-area has been set forth most prominently in the writings of Dr. Clark Wissler, though various aspects of it have been treated by other students. It owes its beginning to an attempt to arrange museum material in the most presentable fashion, and, from its inception, has been utilized as an instrument for the greater understanding of American Indian cultures. The authors using it realize the importance of the phenomenon of trait diffusion, and the apparent grouping of trait-complexes in geographical areas. Wissler, after reviewing the data as to the distribution of various culture-elements over North America, remarks:<sup>23</sup>

It is now clear that no social group in the New World can be reckoned guilty of entire cultural independence, and that certain traits have spread over very large parts of both continents. . . .

After calling our attention to the fact that the natives of America may be grouped according to single cultural traits, giving food, clothing, ceramic areas, and the like, he goes on:<sup>24</sup>

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<sup>23</sup> Wissler, *The American Indian* (2nd ed.), p. 217.

<sup>24</sup> *Ibid.*, p. 218.

If, however, we take all traits into simultaneous consideration, and shift our point of view to the social, or tribal units, we are able to form fairly definite groups. This will give us culture areas, or a classification of social groups according to their cultural traits.

Thus the concept is essentially an analytical one,—there is nothing set about it, and the areas as conceived by its use are fluid and vague of outline rather than fixed and rigid.

Again, in its use, the American school has refrained from applying it in a broadly generalizing sense. The particularistic applications of it which have been made have always been to definite cultural groups,—the complexes envisaged are not fixed and the elements in those complexes are such that they may travel quite independently without disturbing the student who thinks of cultural regions in the terms of this concept. The culture of an area is regarded as a distinctly historical product. Cultural elements may be introduced from without through diffusion, or historical accident may cause them to originate within the group. They may enter the complex, and be changed to fit the prevailing pattern. But there is no such postulating of fixed travelling complexes, as we find in the writings of the Graebnerian school; though there may be an overlaying of cultural traits, it is not an essential point. Rather, the culture-area is conceived as being a flat picture of a culture as it occurs in a geographically continuous area, the various elements of the culture having an historical development which must be accounted for. In his Introduction to *The American Indian*, Wissler remarks:

The historical development of anthropology as a whole, commits us to an historical and geographical point of view, consequently the basic principle of classification in every case will be geographical distribution.<sup>25</sup>

Similar cultures are accepted for what they are, and the tracing of similarities gives point to the concept as it has been developed.

It is, of course, easier to carry on the study of the diffusion of cultural traits in the realm of material culture. It is not strange, that it was from the necessity of classifying museum specimens that this theory took its origin; and in this it resembles the origin

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<sup>25</sup> 2nd ed., p. xix.

of the *kulturkreis*. But, whereas the German school has continued its work on the material plane, the American group has recognized that a mere enumeration of material culture-traits is not sufficient. They have proceeded on the principle that while comparative study of the technique and finish of material objects in the everyday life of primitive peoples is of undoubted value in determining the range of these ideas, it is not enough. In these material elements there are presented to us tangible things which can be mapped and definitely located,—and through their distribution we can undoubtedly lay the foundation for culture-areas. But there are other elements of as great or greater importance in the lives of primitive people. It is these elements, so hard to measure and so difficult to identify as identical, which have been so largely ignored in constituting the *kulturkreis*, and which the American school has attempted to take into account in the building up of culture areas. The distribution of myths, ceremonies, religious beliefs, and other psychological elements of culture is quite as important as that of material elements, if one wishes to gain a picture of the cultures of primitive peoples which will be even approximately true.

And yet, the difficulties in the way of utilizing such data are tremendous. There is nothing more difficult to adequately understand than the psychological reactions of an alien people. It means, on the part of the investigator, a shrewd projection of himself into the mental lives and points of view of the people he is studying, and requires a higher degree of imagination than most field workers, however well trained, can hope to possess. But no consideration of the spread of culture can be complete without just such an application of this type of data to the concept of areas, which has been formed. If the spread of culture is to be studied, then culture in all of its forms must be considered, and any theory which rules out psychological elements must give results which cannot be matched in the actual lives of the peoples studied.

As stated above, the attitudes of primitive peoples toward their cultures must be taken into consideration. Articles of everyday use which may seem identical to the museum worker, may



be utilized for vastly different purposes by each of the several tribes which employ them and with entirely different emotional reactions. Are we justified, then, in claiming that merely because similar complexes of material traits are discovered in various areas, we can regard these traits as the same? If enough of them can be shown to be alike in form, and these elements are complex enough, we may be able to posit unity of origin and thus fulfil the object of the *kulturkreis*, but in the sense of the culture-area, this is not enough. We must insist on sketching the culture-area not only on the basis of actual occurrences of similarity but also according to the psychological value those traits hold for the culture-bearers.

Another prominent point in the concept of the culture-area is that of the culture center. In the consideration of the spread of culture in North America, we do not find an abrupt change from one type of culture to another but a gradual change from tribe to tribe, the culture-areas representing somewhat more of a shading from one type of culture to another than anything in the nature of an abrupt transition. Thus, if the traits typical to the Plains culture be enumerated, it will be found that the tribes living in the central portion of the area, such as the Blackfoot, Crow, Arapaho, Cheyenne, have all the traits. Others, such as the Arikara, Omaha, Osage, in the eastern part, and the Ute and Wind River Shoshoni, in the western, have certain cultural traits found in the areas to the east and west, respectively.<sup>26</sup> Wissler observes:<sup>27</sup>

Thus we see that while in this area there are marked cultural differences, the traits constituting these differences tend to be typical of other areas; hence, we are quite justified in taking cultures of the central group as the type for the area as a whole.

True, maps have their physical limitations, hence the mapping of areas has been necessarily such as perhaps to justify the inference that areas can be abruptly denoted, and that the change from the culture of one area to that of another is a radical one.

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<sup>26</sup> Wissler, *The American Indian* (2nd ed.), pp. 210-222. The map on p. 221 shows the location of the tribes mentioned.

<sup>27</sup> *Ibid.*, p. 222.

An investigation of the actual cultures shows nothing to be further from the truth; and it is from this difficulty with the intergradation of cultures that the concept, in the main quite empirically, of the culture-center has developed. It is not claimed that the central tribes originated the typical culture of the area, nor need they mark the center of diffusion. The center is merely that region occupied by tribes with the culture which seems to the investigator the most typical. It is quite conceivable that, to different students, different culture centers and therefore different areas might be apparent. But there seem to be tribes with cultures from which the surrounding tribes, in a lessening degree as the distance from the typical tribes increases, take the tone of their culture.

It is not necessary that the culture-center be at the geographical center of an area. It may be at one end or the other, as well as in the middle. For it would seem that ethnic factors were more responsible for the establishment of these centers than geographical.<sup>28</sup> But it is found that there go out from it irradiations of its cultural elements, and that all of the tribes in the area of which it is the center manifest more or less the culture of which the central tribes are typical. Indeed, the fact of these intermediate cultures has come out so strongly that Wissler maintains,<sup>29</sup> that

these relations are so consistent that one can almost predict the culture of a given unit when its geographical position with respect to the established centers is known.

It is this, which has brought to light the supplementary fact that tribal and cultural units are far from being identical. Culture, it would seem, travels quite independently of tribal (political) borders, and it is rare for tribes living close to one another not to be influenced by the culture of their neighbors. It does not follow, of course, that the traits adopted are taken over in their entirety. Indeed, it is not often that they are so taken, if we keep in mind the psychological as well as the objective manifestations of the

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<sup>28</sup> Wissler, *Am. Ind.* (2nd ed.), p. 372.

<sup>29</sup> *Ibid.*, p. 258.

elements. A dance, a story, a rite, which is noted in one tribe is often included in the pattern of the next, but with a different meaning, and is sometimes used in an entirely different setting. It is adopted from the other tribe, but is changed to fit into the cultural pattern of the adopting tribe.

It is not denied that cultural complexes may travel as such. The studies made of the distribution of the maize-complex in North America would tend to show that certain traits were bound up with the existence of maize, and travelled with it,—but the complex and its manifestations among the Pueblo Indians and among the Iroquois could scarcely be termed identical. In intensity, and in the functional aspects of the relation of the maize culture to the rest of the respective cultures, there are great differences. Again, Wissler, in his careful study of the spread of the horse in North America and the complex of cultural traits which went with it, has demonstrated that the complex was able to travel faster than its carriers, and that it was absorbed usually in its entirety, including such elements as types of saddles, and other riding-appliances. He also demonstrates very clearly that this diffusion did not take place without adaptations being made in the complex,—adaptations to the prevailing pattern of the peoples who adopted it. Thus, among the Plains Indians the dog travois was immediately applied to the horse, while the wheeled vehicle was ignored. Among those tribes where the environment and the cultural pattern had no place for the horse, as in the Eastern Woodlands, the horse was not accepted.<sup>30</sup>

This brings us to the concept of the marginal area, which is definitely established along with both the culture-area theories. In the Graebnerian sense, the marginal area is a place where two set cultural complexes are struggling for supremacy, both traveling sets of cultural traits meeting, and the younger attempting to displace the older. According to Ankermann,<sup>31</sup> such regions occur especially in broad areas without sharp obstacles to diffusion.

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<sup>30</sup> Wissler, *The Influence of the Horse in the Development of Plains Culture* Amer. Anthro., N. S., XVI, pp. 1-25.

<sup>31</sup> Zeit. f. Eth., p. 55.

Such a region is Africa, south of the Sudan (excluding the West African and Congo regions), and he conceives it as a place where the sharpness of the borders between culture-provinces is broken down, where the boundaries have been broadened:

Statt Scheidung und Nebeneinanderlagerung Übereinanderschichtung und Durchdringung.

The sense of the term as used by the American group is something quite different. There is no concept of sharply bounded areas. As we move away from the culture-center, the intensity of the typical culture diminishes. Elements not found in the center are to be noted, and some of the typical traits are found missing. If we continue on in our given direction, however, we find that the traits which appeared as intruders become more and more intense, until we reach the diffusion-center of another group of traits,—another culture-center, that of a different area. It is this shading which gives rise to the marginal-area idea, which is that as one travels outward from the center of an area, one comes on a region with indeterminate culture. It partakes of the characteristics of both the bordering areas and might almost be termed a hybrid culture.<sup>32</sup> Lying on the margin of an area, it is called "marginal," and this term is applied to the regions in which it, and others like it are found.

The problem of the marginal area is not by any means solved. A number of questions arise. The most prominent would naturally be the justification of the use of the term, and of the concept itself. It is a fair question, why the marginal area is not itself called the center of an area, with the typical tribes "marginal." The answer lies mainly in the nature of the culture-area as conceived by those who make use of it. It is essentially a conceptual<sup>33</sup> tool, not, like the *kulterkreis*, something hard and fast or absolute. When certain traits are found concentrated in a definite part of a region and the investigator finds their most typical manifestations in that section, he is justified in terming that part of the area the center, while placing the marginal area where the culture is

<sup>32</sup> See above, p. 242, the example cited with reference to culture-centers.

<sup>33</sup> Cf. Sapir *Time Perspective in Aboriginal American Culture*, p. 44.

weaker, and partakes to a greater and greater extent of a differing neighboring culture.

The Graebnerians are hardly justified in their characteristic assumption of the complete stability of culture in travelling, or over long periods of time. As a culture-trait moves from one region to another, it changes its form and its function, often so as to be almost unrecognizable. That culture-traits do so move, cannot be disputed. But there must be either such an overwhelming similarity of form that multiple origin is impossible (as in the case of the intricate spinning-machine mentioned above), or there must be continuous geographical distribution, or historical evidence of such distribution before unity of origin can be admitted. The culture-area, like the *kulterkreis*, posits diffusion, but it insists that other than mere logically comprehensible categories be maintained. If traits are found to be similar and geographically continuous in their distribution, their development from a single origin is assumed. But this is a far cry from the assumption of a single origin for a single cultural trait of no great complexity found in regions as far removed as South America, Africa, and Melanesia. Further, the attitude of the Graebnerians as to the lack of change in a trait over a long course of time would seem to be again fallacious. It is true that primitive cultures are relatively stable when compared with our present civilization. But that they are absolutely unchanging, or that units of their cultures undergo no change, the most cursory survey of archaeological data will suffice to demonstrate as untenable; and if this be true of elements of material culture, it would not be strange if it were also true with regard to those of a more immaterial nature.<sup>34</sup>

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<sup>34</sup> A group of English students of culture, headed by the late W. H. R. Rivers and G. Elliott-Smith, have developed the theory of diffusion of a culture which had its origin in Egypt, basing their findings on the occurrence of a number of independent traits found in Egypt. The assumption of the stability of these traits in their journey around the world is made through a comparative utilization of material which would appear to have been uncritically employed and not fully digested. See, for the most complete statement of the position of this group, article "Anthropology," in *Encyclopedia Britannica*, 12th ed., vol. xxx, particularly pp. 147-153 and W. J. Perry's "Children of the Sun."

## 3.

As has been remarked above, the concept of the culture-area as developed in America has not been applied to non-American regions. However, the concept must stand by the universality of its applicability, for, obviously, a "principle" of cultural development applicable to one area only is no principle. The Graebnerian concept has been applied to other regions, but with results that seem not justified by the data available. It is the purpose of this essay to attempt an application of the culture-area concept to one region of Africa. Ankermann, in applying the Graebnerian criteria and method to the African data,<sup>35</sup> and following Frobenius, who mapped out the West African area,<sup>36</sup> has designated two main areas. The first is the West African, also termed variously East Papuan and Indonesian or, according to Frobenius, the Malayo-Nigritish. The other includes the rest of Africa, except Egypt and the territory north of the Sudan, and is divided into culture-provinces. It has seemed, however, that a distinct area is to be noted in eastern Africa, which falls readily into a culture-area of North American type; it is this region the writer has elected to set off, and he assumes as the orienting feature of the culture, the presence of cattle.

On this assumption I will review the available data with regard to the cattle-using tribes of East Africa. There will be noted, in general, the following points: the existence of cattle, their place in the life of their owners, further, all available instances of the part played by cattle in the culture of the people, —in the economic composition of their society, in their social customs, and the like. The attempt will be made to show the resemblances and differences between the tribes living in this area and those outside of its borders where cattle are not found, or where they play different rôles in the culture of their owners living outside the area. Through the data adduced, I will test the applicability of the culture-area concept to data other than American.

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<sup>35</sup> Zeit. f. Eth. l. c.

<sup>36</sup> L. Frobenius, *Der Ursprung der Afrikanischen Kulturen*, Berlin, 1898.

## II

The distribution of cattle in Africa covers by far the larger portion of the continent. They are found across its entire width from the Sudan northwards, while south of the Sudan they are absent only from the Congo basin and a region on the East Coast between the fourth and eighteenth parallels of south latitude, approximately. It must not be assumed, however, that the distribution is continuous in the regions noted. There are many small areas where the existence of the dreaded tse-tse fly makes it impossible for cattle to live, and a detailed map of Africa showing the distribution of this insect shows the southern portion of the continent to be spotted with numerous "fly-belts." Nevertheless, in the main, cattle may be considered as occurring in all the vast area mentioned.<sup>37</sup>

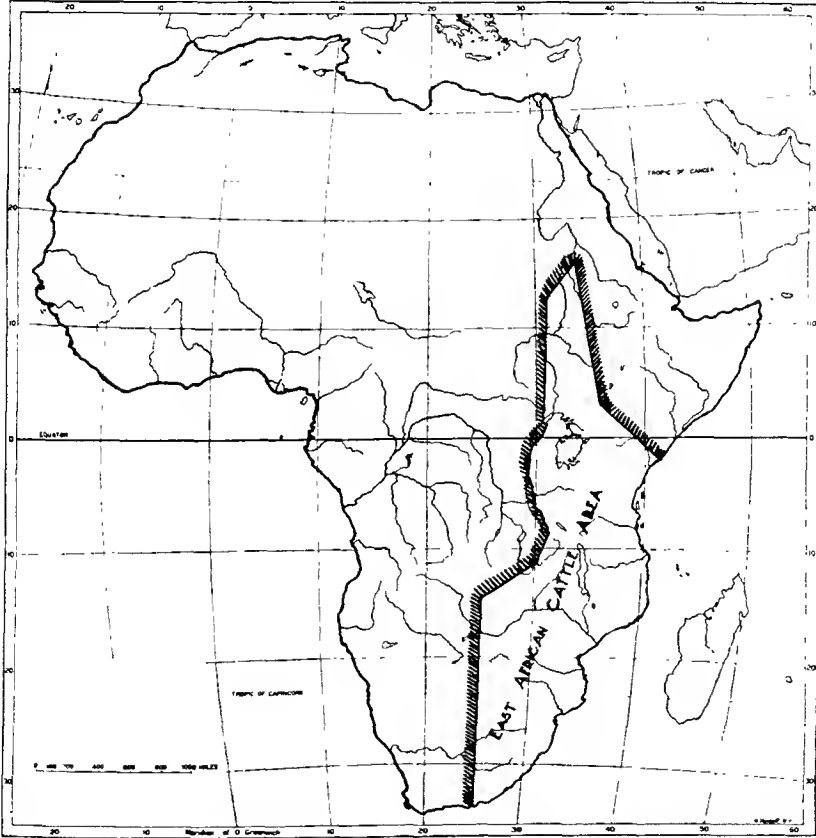
If, however, a study be made of the cultures of the peoples inhabiting this area, it will soon be found that to equate their cultures on the basis of the ownership of cattle will lead to confusion. In the north of Africa, where the Mohammedan influence is strong, and where the environmental fact of the Sahara desert must be met, the student finds a culture vastly different from that of the Zulu in the southern portion of the continent. Similarly the usages of the tribes of Kordofán and of the Victoria Nyanza regions are found to be equally dissimilar. The historical backgrounds of these respective groups are quite different, and, with reference to cattle, the intensity of the cultural influence their existence exerts on the general cultures of the various groups, differs greatly.

Within the general distribution area, there are a number of sub-areas, in each of which the culture may be considered a unit. Certain traits stand out strongly, and the culture of any given tribe will be found to resemble much more that of another tribe in the same area than the culture of a tribe outside the area. While the Arabs of the Sudan have cattle, these do not play the same part in their lives as in that of the peoples inhabiting the eastern portion of Africa. Similarly, though the intensity of the

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<sup>37</sup> Cf. Frobenius, L., *Der Ursprung der Afrikanische Kulturen*, Karte xxv.

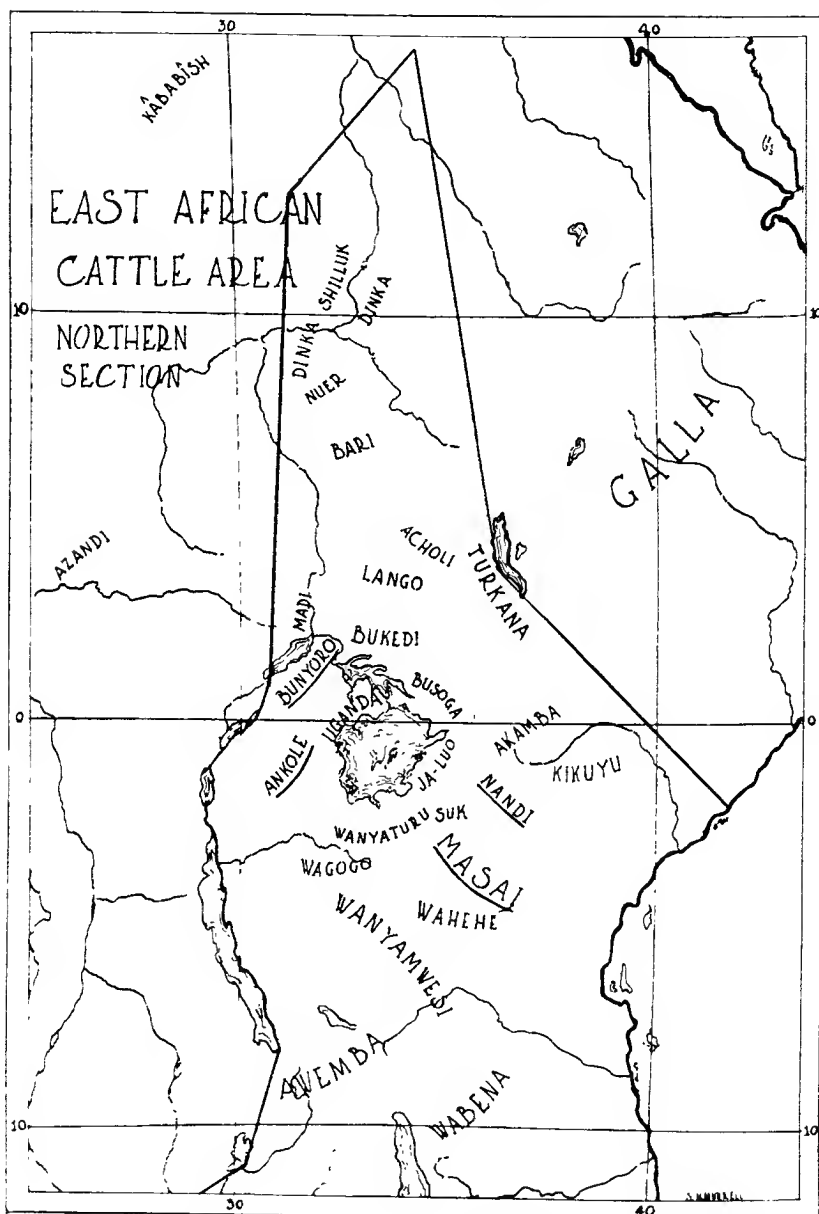
cattle pattern among the Hottentots resembles that found in the East African region, it presents such differences that no one would classify the two together. In the following section of this essay, then, there will be considered this East African region. It is here that the regard for cattle reaches its highest pitch, here that they play the greatest part in the everyday life of their owners, so that no study of the region can be made without considering them.



1.

The East African area under consideration can be denoted, roughly, as one having the shape of an hour-glass. The upper portion has its greatest width along a line stretching from the lower White Nile and Lake Rudolf to the Indian Ocean, and





narrows to the region lying between the southern end of Lake Tanganyika and the northern end of Lake Nyassa. From here, the lower portion of the hour-glass widens as it crosses the Zambesi

and includes Rhodesia, Portuguese East Africa, and the territory of the Union of South Africa east of the Kalahari desert and as far west as the twenty-fifth meridian of longitude, east.<sup>38</sup>

The northernmost tribes in this territory are the Shilluk, Beir, Nuer, and Dinka,<sup>39</sup> and it is among them that we find the cattle taking on the importance characteristic of the area. Proceeding toward the southeast, we find the Bari and Madi,<sup>40</sup> and, continuing on this line, the Turkana,<sup>41</sup> Suk,<sup>42</sup> Kikuyu,<sup>43</sup> Atheraka,<sup>44</sup> A-kamba,<sup>45</sup> and only a few miles from the Indian Ocean, the Wa-Giriana.<sup>46</sup> It is, perhaps, to the south and west of this line that we find the most intensive development of the cattle complex. In this region, centering about Lake Victoria Nyanza, we find on the east the Masai,<sup>47</sup> the Nandi,<sup>48</sup> the Nilotic Kavirondo,<sup>49</sup> Bantu Kavirondo,<sup>50</sup> and Bateso.<sup>51</sup> Further to the west there are

<sup>38</sup> Cf. H. H. Johnston, "British Central Africa," pp. 429 ff., for the distribution and types of cattle in this area.

<sup>39</sup> Schweinfurth, G., *The Heart of Africa*; Johnston, H. H., *The Uganda Protectorate*, vol. 2; Gleichen, *The Anglo-Egyptian Sudan*; Logan, the Beirs, in *Sudan Notes and Records*, vol. I, pp. 238 ff; Fergusson, *ibid.*, vol. IV, pp. 146 ff., for the Nuer, Westermann, D., *The Shilluk People*.

<sup>40</sup> H. H. Johnston, *The Uganda Protectorate*, vol. II.

<sup>41</sup> Major R. F. White, *Notes on the Turkana Tribe*, *Sudan Notes and Records*, vol. III, pp. 217-222.

<sup>42</sup> Mervyn W. H. Beech, *The Suk, their Language and Folk-lore*.

<sup>43</sup> Chas. Dundas, *History of Kitui*, *Jour. Roy. Anth. Inst.* vol. XLIII, pp. 480-549; Hobley, C. W. *Ethnology of the A-Kamba and other East African Tribes*, as well as other works on this region noted in the bibliography.

<sup>44</sup> Dundas, *Hist. of Kitui*, loc. cit., pp. 541 ff.

<sup>45</sup> Gerhard Lindblom, *The A-Kamba, an Ethnological Monograph*; Hobley, l. c.

<sup>46</sup> Capt. W. E. H. Barrett, *Notes on the Customs and Beliefs of the Wa-Giriana*, *Jour. Roy. Anth. Inst.*, vol. XLI, (1911), pp. 20-39. It must be understood that the tribes noted above do not begin to fill the region from the Nile to the ocean. One of the handicaps under which any work on Africa must suffer is that the available literature leaves many geographical gaps. However, the tribes mentioned above, and those to be referred to below, represent what may be perhaps termed a fair sampling of the total population; local variations in customs are, unfortunately, too often ironed out by this lack of detailed information.

<sup>47</sup> M. Merker, *Die Masai*; Hollis, A. C., *The Masai, their Language and Folklore*.

<sup>48</sup> A. C. Hollis, *The Nandi, their Language and Folklore*.

<sup>49</sup> John Roscoe, *The Northern Bantu*.

<sup>50</sup> H. H. Johnston, *Uganda Protectorate*, vol. I.

<sup>51</sup> Roscoe, op. cit.

the Baganda,<sup>52</sup> the Bakene, the Banyoro, the Banyankole or Bahima, the Bagesu, the Barundi,<sup>53</sup> and the Bakonjo, who used to have many cattle, but whose herds were depleted by Bahima raids.<sup>54</sup> In this region, inhabited by peoples of various racial affinities, the existence of cattle is the outstanding feature. Few phases of their lives are not touched by their ownership of cattle. The extent to which this is true will be shown below.

The literature covering the region southeast of Lake Victoria, and east of Lake Tanganyika, in what is today Tanganyika Territory, is somewhat more scanty than that on the tribes mentioned above. South of Ankole, and to the southwest and south of Lake Victoria, Kollman mentions the inhabitants of Karagwe, Kisiba, Ussindja, the island of Ukerewe, Ussukuma, and Ushashi as far north as the country of the Masai, as having cattle, but his sketches of these peoples are so brief that it is difficult to understand the extent to which they are important.<sup>55</sup> Dundas<sup>56</sup> speaks of some of the following tribes which have cattle: Wapare, Wamakonde, Wangoni, Wakumbi, Wanyamwesi, and others; while Eichhorn has given, from Karasek's notes, an account of the Washambaa,<sup>57</sup> Claus of the Wagogo,<sup>58</sup> von Sick<sup>59</sup> of the Waniaturu, and Dempwolff of the Sandawe.<sup>60</sup>

West of Lake Nyassa, where the cattle area narrows, we find the Awemba, Angoni, Achewa, Alungu, Ainamwanga, and Awiwa.<sup>60a</sup>

<sup>52</sup> John Roscoe, *The Baganda*.

<sup>53</sup> *Id.*, Northern Bantu. Roscoe also treats of the Bahima in an article of that name, *Jour. Roy. Anth. Inst.*, vol. xxxvii (1907), pp. 93-119.

<sup>54</sup> H. H. Johnston, *op. cit.*, vol. II, p. 576.

<sup>55</sup> Paul Kollman, *The Victoria Nyanza; the Land, the Races and their Customs*, H. Rehse, Kiziba, Land und Leute.

<sup>56</sup> Chas. Dundas, *Native Laws of some Bantu Tribes of East Africa*, *Jour. Roy. Anth. Inst.*, vol. LI (1921), pp. 217 ff.

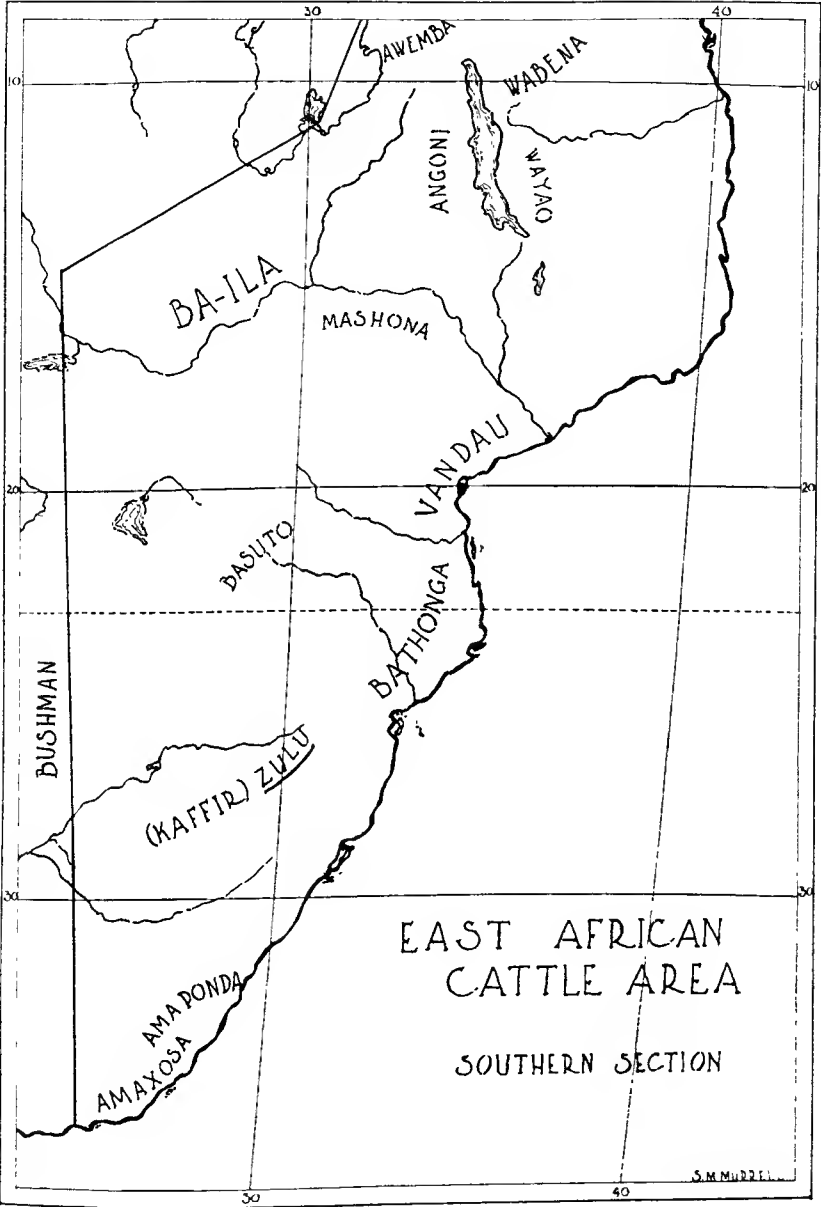
<sup>57</sup> August Eichhorn, *Beiträge zur Kenntnis der Washambaa—nach hinterlassenen Aufzeichnungen von A. Karase Baessler Archiv*, Bd. I (1911), pp. 155-226, Bd. II, pp. 67-131.

<sup>58</sup> Heinrich Claus, *Die Wagogo*, *id.*, Beiheft II, 1911; Rev. H. Cole, *The Wagogo*, *Jour. Anth. Inst.*, vol. xxxii, pp. 305-338.

<sup>59</sup> Eberhardt von Sick, *Die Waniaturu (Walimi)*, *id.* Bd. V, (1916) pp. 1-62.

<sup>60</sup> Otto Dempwolff, *Die Sandawe*, *Abhand. des Hamburgischen Kolonialinstituts*, vol. xxxiv.

<sup>60a</sup> See J. C. C. Coxhead, *the Native Tribes of Northeastern Rhodesia*, *Roy. Anth.*



To the east of these tribes occur the non-cattle-owning peoples of Nyassaland, the Wa-Yao being the most notable.<sup>61</sup> It is believed that the lack of cattle among them is due to the presence of the tse-tse fly. Among the tribes noted immediately above, the cattle play a part that if not so extensive as among the peoples to the north, is still apparent.

Proceeding to the south, the area of distribution of cattle widens and their presence again becomes of greater importance. In Northern Rhodesia, Smith and Dale have described a number of peoples grouped under the name Ba-Ila, there being several sub-tribes included in the term.<sup>62</sup> Proceeding eastward along the Zambesi we find the Mashona, and, along the coast to the south, the Vandau.<sup>63</sup> Further south, in Portuguese East Africa, are the Thonga, who have been so graphically described by Junod.<sup>64</sup> West of the Thonga we find the Swazi, Sudo-Pedi, Bechuana, and Basuto peoples,<sup>65</sup> while southward there occurs the empire of the Zulu,<sup>66</sup> and, near the Cape, the Ama-xosa and Ama-pondo Kafirs.<sup>67</sup>

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Inst., Occasional Papers, no. 5, 1914; H. H. Johnston, *British Central Africa*; Cullen Gouldsbury and Hubert Sheane, *The Great Plateau of Northern Rhodesia*; Alicia Werner, *The Natives of British Central Africa*; cf. also Cullen Gouldsbury *Notes on the Customary Law of the Awemba and Kindred Tribes*, *African Society Journal*, vol. xiv, pp. 366 ff., vol. xv, pp. 36 ff. and 157 ff.

<sup>61</sup> Hugh S. Stannus, *The Wayao of Nyassaland* *Harvard African Studies*, vol. III (1922), pp. 229-273; Karl Weule, *Native Life in East Africa*; A. Werner, *op. cit.*; Rev. D. MacDonald, *Africana, or the Heart of Heathen Africa*.

<sup>62</sup> Edwin W. Smith and A. M. Dale, *The Ila-speaking Peoples of Northern Rhodesia*.

<sup>63</sup> The facts noted in this paper on the Vandau have been gained in conversation with Mr. C. Kamba Simango, a member of this tribe. More detailed information is to be had on the Vandau in Mr. J. Herskovits, *Some Property Concepts and Marriage Customs of the Vandau*, *Amer. Anth. (N.S.)* vol. xxv, (1923) pp. 376-387.

<sup>64</sup> Henri A. Junod, *The Life of a South African Tribe*; *Les Bā-Ronga*.

<sup>65</sup> E. Casalis, *Les Bassoutos*, Fritsch, *Die Eingeborenen Süd-Afrikas*.

<sup>66</sup> Thomas B. Jenkinson, *Amazulu. The Zulus, their past history, manners, customs and language*; David Leslie, *Among the Zulus and Amatongas*; Bishop Callaway, *Zulu Nursery Tales*, vol. I.

<sup>67</sup> Col. MacLean, *A Compendium of Kafir Laws and Customs*; Cape of Good Hope, *Report and Proceedings . . . of the Government Commission on Native Laws and Customs*, 1883; South African Native Affairs Commission, 1903-1905, *Report with Annexures and Testimony* (5 vol.), South African Native Races Commission, *The Natives of South Africa*, Dudley Kidd, *The Essential Kafir*.

These constitute the most important peoples in the area under consideration. If the map be consulted, it will be found that their area follows, roughly, the eastern watershed of the Congo basin, centering in the north about Lake Victoria Nyanza and in the south comprising the basins of the lower Zambesi, Limpopo, and other streams entering the Indian Ocean. To the west of the area, in the south, are the cultures of the Bushmen of the Kalahari desert and of the Hottentots of Great and Little Namaqualand. Further north, the Congo culture, termed by Frobenius and Ankermann the West African culture area, borders the East African region, while on the north it is bounded by the Mohammedan-Arabic cultures of the Eastern Horn of Africa, and of the Dar-Fur region.

2.

At the outset it might be well to ask whether the use of the term "East African cattle area" is justifiable. Many studies have been made of the area under consideration, or portions of it, and although various divisions have been made, the one distinguished here has not been noted. At the same time, the importance of cattle, where they exist, in the cultures of the people owning them, and particularly their significance in this region, have not gone unnoticed. Frobenius<sup>68</sup> remarks of this region, "The breeding of cattle exercises deep influence upon the compass and intent of culture . . . ." in East Africa. Seligmann, in a discussion of the Hamitic problem in the Anglo-Egyptian Sudan,<sup>69</sup> is impressed by the importance of the customs connected with milk and cattle among the Nilotic tribes in the northern part of the area, and remarks that "this sacred or uncommon character of milk extends to a number of Central and East African Bantu-speaking tribes. . . ."<sup>70</sup> Dowd, in his study of the Negro races, recognizes the importance of the presence of cattle, although he divides the area here regarded as one into a Northern and a

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<sup>68</sup> Leo Frobenius, *The Origin of African Civilizations*, Ann. Rep. Smithsonian Institution, 1898, p. 647.

<sup>69</sup> Jour. Roy. Anth. Inst., vol. XLIII (1913), pp. 593-705.

<sup>70</sup> *Ibid.*, p. 656.

Southern Cattle Zone.<sup>71</sup> Ratzel, in his "History of Mankind," presents his map so as to give a picture of the cattle-owning tribes in contrast to the agricultural ones, although he distinguishes between the peoples of the Victoria Nyanza region who are only herders, and those farther south who also do agricultural work.<sup>72</sup>

Thus upon those who have considered the situation, the presence of cattle impresses itself as of primary importance. It will be seen, as this discussion proceeds, how their presence manifests itself in particular ways. At the same time, it will be well to justify the selection of this trait as the one with which to characterize this area, by other examples. The connection of cattle with certain ceremonies, as marriage, birth and death, their place in the economic life, and other ways in which their particular significance manifests itself, must be reserved for later treatment. At present, it is sufficient to see how their presence impresses itself on the natives, as reported by various observers.

The Shilluk of the Upper Nile, visited by Schweinfurth in the period from 1868 to 1871, live in a restricted area, characterized by the density of the population. At the same time, room was found for the cattle, although only a comparatively limited amount was to be had for grazing. Wherever the breeding of cattle was carried on, it was the custom of the natives never to kill an animal. Only those which died a natural death were consumed. the reason given being that the Shilluk looked upon the possession of living cattle as the main object of their existence. "With these, steers do the duty of guineas and napoleons."<sup>73</sup> The Dinka, who live across the Nile from the Shilluk, were bitter enemies of theirs, yet at one with them in their affection for cattle. Here too, every thought was how to get more cattle, and whatever concerned the beasts was important. Cows were never slaughtered, and when a cow became ill it was put aside in a special hut and doctored. Only those that died were used for food.<sup>74</sup> Indeed, so

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<sup>71</sup> Jerome Dowd, *The Negro Races, a Sociological Study*.

<sup>72</sup> *Op. cit.*, vol. II, p. 338.

<sup>73</sup> *Op. cit.*, vol. I, p. 103; see also Westermann, *op. cit.*, pp. xxvii ff. He cites 38 special descriptive terms for cattle, pp. 107-108.

<sup>74</sup> *Ibid.*, vol. I, pp. 152 ff.

strong was this love of their animals that they contemptuously called a neighboring small tribe "Dyur," to indicate the poverty of these people, who preferred to do agriculture and disregarded property in cattle.<sup>75</sup> Among the Nuer, wealth is judged entirely by the number of cattle and sheep a man possesses; they do little agriculture and practically no hunting, but spend their time herding. In the report of Capt. H. H. Wilson, Inspector of the Upper Nile Province of the Sudan, and quoted by Gleichen, we read that in the center of one Nuer village there was a huge mound, in which the bones of innumerable oxen were buried. Its purpose was to show that Denkur, the ruler, was "a very big man in that part of the world." and the cattle which had been slaughtered there gave the cone its great value, since cattle, the most valued possession of all the White Nile tribes, "are practically all they live for."<sup>76</sup> According to Fergusson, the traditional hostility of the Nuong Nuer to the Shish comes from the theft by the legendary ancestor of the latter of a calf belonging to the ancestor of the Nuer; and another great enemy, Chief Wal Atiang, is such because of trouble arising over cattle.<sup>77</sup> The Beir, a pastoral people, have "their mode and habits of life . . . subordinated to the requirements of their cattle." During the rainy season, May to October, they live in villages and cultivate durrah, but they migrate up and down the rivers as soon as pasturage fails. Herding goes on from one o'clock in the morning until seven at night, small boys and young men doing the work. The object of raiding is always to get cattle, and the announcement of a raid will bring adherents of many chiefs to rally about a leader of renown.<sup>78</sup> Schweinfurth, after travelling among the Shilluk, Dinka, and Nuer, was so impressed by the importance of cattle-owning that he remarked, when he reached the tribes further west, The Shillook, Nueir, and Dinka . . . stand out in marked distinction to the dwellers on the iron-red rocks . . . the Bongo, Mittoo, Niam-Niam,

<sup>75</sup> *Ibid.*, vol. I, pp. 200 ff. Johnston, however, remarks of the Dyur that "all of them (the Nilotic tribes, including the Dyur) keep goats, sheep, and cattle." Uganda Protectorate, vol. II, p. 777.

<sup>76</sup> Anglo-Egyptian Sudan, vol. I, p. 140.

<sup>77</sup> Sudan Notes and Records, vol. IV, pp. 147, 150, 151.

<sup>78</sup> Logan, loc. cit., pp. 240, 243-244.



and the Kredy, all of which are equally remarkable for their entire indifference to cattle-breeding.<sup>79</sup>

Dundas remarks of the A-Kamba of Kitui, "All-important in the village are the cattle." The greatest pride and joy in the life of the Mkamba are his cattle, and nothing can equal them in his estimation. They are parted with only to pay for a wife; indeed, "even a wife is a second consideration to these, for after all she is valued only as representing a portion of the herd." He only parts with cattle for his wife because they are regarded by him as a sort of deposit, to be returned to him if she leave him. Even starvation will not induce the Mkamba to slaughter his cattle.

I shall never forget the horror displayed by a native who complained that he was starving, when I suggested that he should slaughter a cow; such a thing is inconceivable to the Mkamba; . . . neither will he think of selling a cow, even if he is on the verge of starvation.<sup>80</sup>

Among the Wa-Giriama, who live near the coast, although there are few cattle found, the importance of those they possess is none the less great. Here, too, cattle are killed only on the most important ceremonial occasions.<sup>81</sup>

West of the A-Kamba, among the Nilotic Suk, Nandi, Masai, and Turkana, the influence of the cow is paramount.<sup>82</sup> All live primarily for their cattle, and this is particularly true among the Masai. Here the herding is done by the younger men, at once the warriors and rulers of the country. If a man be elected chief, the first qualification is that he possess cattle.<sup>83</sup> In raiding, the most important thing is to bring back cattle and this practice is so popular that for many years the Masai were the terror of the country-side, despoiling many of the surrounding peoples of their stock.<sup>84</sup> In this military organization, there is aversion for anything not connected with cattle. The young warriors look with contempt upon the iron-workers who furnish them with their

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<sup>79</sup> *Op. cit.*, vol. I, p. 261.

<sup>80</sup> *History of Kitui, Jour. Roy. Anth. Inst.*, vol. XLIII, p. 501.

<sup>81</sup> Barrett, *loc. cit.*

<sup>82</sup> See also H. H. Johnston, *Uganda Protectorate*, vol. II, ch. XIX, for a brief general account of these four peoples, as well as the more special works on them.

<sup>83</sup> Hollis, *The Masai*, p. 299.

<sup>84</sup> New, *Life in Eastern Africa*, pp. 202 ff.

weapons. They eat no food that does not come from cattle, while to do agricultural work is beneath consideration.<sup>85</sup> In Hollis' translation of Masai accounts of ceremonies, we read:

The Masai love their cattle very much, and consider that nothing in the world is of equal value. As with people, each cow is known by a name. There is a saying which is as follows: "One cow resembles a man's head." They mean by this that if a man has a cow, which he looks after and tends, it bears, and by so doing enables him to live, for he can marry, and have children, and thus become rich.<sup>86</sup>

Merker observes on this point:

Das höchste Glück der Masai ist ein möglichst grosser Viehbesitz, sein ganzes Denken und Tun gilt der Erhaltung und Vergrösserung der Herden.<sup>87</sup>

They love the very grass the cattle eat, and the prominence which grass has in the ritual of the Masai and neighboring tribes is often mentioned.

The Nandi, one of these neighbors, are also known for their cattle. Before the British punitive expedition, they had enormous herds, a large proportion of which they lost. Unlike the Masai, they do agricultural work, but there may be no mixing of the two kinds of food. They are careful in the extreme that these do not mix in the stomach, for should this happen, the cows would be materially harmed. The Nandi young men care for the cattle, living by themselves at the grazing grounds away from the married people. When an animal is slaughtered, or when one dies, and there is meat to be eaten, it cannot be consumed in a vulgar way. There are special huts, placed in the woods, to which the men repair for their feasts. All the agricultural work is done by the women, although the men clear the ground for them. The owner of cattle knows his animals individually and loves them. The ceremonies attendant on their capture or when they have been struck by lightning, the part they play in the occasions of crisis in the lives of their masters, and the constant care and thought given to them, show their importance for an understanding of the culture of these people.<sup>88</sup>

<sup>85</sup> Merker, *Die Masai*, pp. 82 ff., p. 110.

<sup>86</sup> *Op. cit.*, pp. 288 f.

<sup>87</sup> *Op. cit.*, p. 157.

<sup>88</sup> Hollis, *The Nandi*, pp. 23 ff., 45 ff., 61-64.

The Suk are divided into two sections, the agricultural and the pastoral. Although the former are thought to have preceded the latter, and predominate in numbers, yet

when once the pastoral Suk originated, it became, and still is, the ambition of the hill (agricultural) Suk to amass sufficient live-stock to enable them to descend into the plains and join the pastoral Suk.<sup>89</sup>

Beech's work, although largely linguistic in character, demonstrates strikingly the place the cattle hold in the affections of these people. In the vocabulary given, under "ox," one finds twenty-eight words to express the various types of cattle, each word describing some peculiarity recognized in the animals. They not only exert their influence on the vocabulary of the Suk, so that "special names, adjectives and nouns exist to describe every color and peculiarity of cattle," but a similar influence is exerted on the very structure of the language, so that "if an adjective stands by itself the noun it qualifies is always understood to be "cow." Again

even an ox-skin has a different word in Suk to the skin of any other animal (min-yon). Similarly the verb for "to drink," if the object be milk, is root *lu*, while the verb for to drink anything else is *igh*. Again, an ordinary calabash is *set*, while a milk calabash has a special name *muk-a*. The Suk lives for his cattle, and everything is done to make them an object of reverence.<sup>90</sup>

The pastoral Suk look down upon their agriculturalist kinsmen, calling them *pi'-pa-pagh*, or "seed-people," because of their poverty as expressed in their lack of cattle.

The Turkana do practically no agriculture, eating principally milk and meal and little grain. They keep camels and donkeys as well as cattle, using the former for milk and the latter for transport. As a measure of value, however, it is the cow that is used,—cows are given the Abyssinians as payment for rifles, while the dowry is always cattle.<sup>91</sup>

As we turn to the west, the importance of cattle does not diminish. In Uganda the aristocracy own most of the herds. There are two or more distinct classes: the peasants, who till the

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<sup>89</sup> Beech, *The Suk*, p. 4.

<sup>90</sup> *Ibid.*, p. 9.

<sup>91</sup> White, *Sudan Notes and Records*, vol. III. pp 217 221

ground, work the roads and build the fences and houses of their superiors, fighting when necessary; and the aristocracy of kings, chiefs and priests. Although the peasant may own a few head of cattle, he does not herd them himself, but trusts them to the care of a friendly chief. In former times, when he took care of his own cow, it was of so great value to him that, not possessing a kraal, and not daring to trust it to the night unguarded, he kept it in the hut where he himself slept.<sup>92</sup> Only the nobility could afford to have herdsman, and it is interesting to note that these Bahima herders looked down upon their employers for not observing their own numerous food taboos, and devoting themselves to other matters than cattle-tending. Here, too, we find the refusal to kill cattle for food except on important occasions and by chiefs, and then only in the case of bulls or cows past bearing age.<sup>93</sup> The huge herds of the chiefs and of the king were divided into small parts, for safety's sake, and distributed through the various portions of the country, at the owner's direction. The king was interested in cattle,—a portion of every heritage went to him, but only cattle and women. It is important to note that cattle and women were the main forms of wealth, particularly among the nobility, although cowry-shells and bark-cloth were also of value. If a peasant obtained too many cattle, he was liable to excite the envy of his chief, who would bring charges against him, fine him, and take away his surplus. Similarly with the chiefs, who were careful not to amass fortunes of too great a size, for

a chief who showed too great signs of being wealthy would have excited the King's envy, and would have been robbed by him, on some trifling pretext.<sup>94</sup>

The gods had herds of cattle, which, although they were kept for sacrifices, were retained in part for milking, and if the king became angry with the god he would plunder the "rich estate and carry off the cattle."<sup>95</sup> Johnston, however, believes that cattle are a comparatively late introduction and remarks that

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<sup>92</sup> Roscoe, *The Baganda*, p. 417. See also Johnston, *Uganda Protectorate*, vol. II, p. 654, and Kollmann, *op. cit.*, p. 17.

<sup>93</sup> Roscoe, *The Baganda*, p. 420.

<sup>94</sup> *Ibid.*, p. 269.

<sup>95</sup> *Ibid.*, p. 301. See also Kollmann, *op. cit.*, p. 12.

cattle-keeping . . . has never taken the same hold over these eaters of the banana as has been the case with the people of less distinctly negro character to the east and . . . west.<sup>96</sup>

This stratification of social groups, and their correlation with occupation, seen dimly among the Baganda, stands out with great clearness among the Banyoro and Banyankole. Among the former, we find two distinct classes: a ruling class, comprised of the pastoral clans, and a subject class, whose members do all the menial labor and form agricultural clans.<sup>97</sup> It is supposed that the latter element is the older population of the region, which was overcome by invading Nilotic peoples. These pastoral people refrain, as far as possible, from all manual labor. They expect the agricultural people to do their work for them, to build their houses, carry their firewood and water, and supply them with grain and beer. As to dress, the pastoral people use cow-skins almost exclusively. It is from this group that the kings, their councillors, and the district chiefs come. And this is emphasized by the numerous food taboos which the king must observe. He may eat nothing but meat and milk; he has a special herd from which he is fed, and the cows in it must be specially selected and must not come in contact with other cattle, even the king's other herds. There were special herdsmen who did nothing but take care of these cows, and the common people might not come near them. From this special herd nine cows were taken to supply the king, each doing duty for about two months. This group of nine cows had three special herders, and in addition a boy whose duty it was to drive the cows in from pasture daily, and to call out that he was coming, so people might get out of the way of these sacred animals. A bewildering variety of rules governed the conduct of this boy and of the herdsmen,<sup>98</sup> and the actual milking of the cows and the serving of this milk to the king was one of the serious affairs of the day. Land was valued only for its pastoral qualities. If a peasant wanted to settle anywhere to cultivate the land, he had only to ask permission, to get it,—

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<sup>96</sup> Uganda Protectorate, vol. II, p. 669.

<sup>97</sup> Roscoe, *Northern Bantu*, p. 4.

<sup>98</sup> *Op. cit.*, pp. 11-12.

land for agricultural purposes was of no value, and as long as he did not interfere with the cattle little attention was paid to him. Chiefs were given huge tracts over which to govern, and princes of the age of eight or nine were sent from the capital into the country to be placed under responsible herdsmen and trained in the arts of cattle-breeding, milking, herding, and the treatment of sick cows.<sup>99</sup> The importance of eating nothing but milk and meat is shown by the fact that the worst penalty inflicted upon one of the king's wives who had committed adultery was not drowning, but being sent to Bukedi to be given in marriage, where the people wore no clothing and lived upon grain, whereas a woman from Bunyoro, accustomed to a milk diet, preferred death to the degradation of cultivating and eating vegetable food.<sup>100</sup>

Turning to Ankole, the home of the Bahima, or Banyankole, we find an even greater intensity of the cattle culture. The land is not good for purposes of cultivation, as it is in Uganda and Unyoro, and there are only a few agricultural people. These are called Baheru, "slaves," and are little removed from a state of domestic slavery.<sup>101</sup> They do all the menial work for the pastoral group,—transport, building, supplying them with beer or what vegetable food they may require. The dominant class do nothing but cattle-rearing, guarding the herds against attacks of wild beasts or forays of hostile tribes, and providing fuel for the kraal and litter for the calves to lie upon.

Men become warmly attached to their cows; some of them they love like children, pet and talk to them, coax them, and weep over their ailments. Should a favorite cow die, their grief is extreme and cases are not wanting in which men have committed suicide through excessive grief at the loss of an animal.<sup>102</sup>

It is the very concentration on cattle-raising which has preserved the independence of this small people; they raise so many cattle that they have been able to live on friendly terms with the larger

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<sup>99</sup> *Ibid.*, pp. 18 f.

<sup>100</sup> *Ibid.*, p. 23.

<sup>101</sup> *Ibid.*, p. 103. See also Johnston, *Uganda Protectorate*, vol. II, pp. 607-610, for the Bairo, as he terms them, and p. 620 for cattle among the Bahima.

<sup>102</sup> Roscoe, *loc. cit.*, p. 104. See also Roscoe, *The Bahima*, *Jour. Roy. Anth. Inst.* vol. XXXII, pp. 94-95.

neighboring states through frequent gifts of stock.<sup>103</sup> The Bahima recognize no man as king unless he is of royal blood, and the king does not reckon his greatness by the area of his kingdom nor by the number of subjects nor yet by the amount of land cultivated, but by the number of cattle he possesses.<sup>104</sup>

In fact, this idea is carried so far that the king appoints his chiefs under him to rule a certain number of cattle. Although each chief has a district with definite boundaries, these are only for keeping the various herds separate, and preventing disputes between herdsmen as to the best pastures. The king is the real owner of all the cattle, and since a man's life is bound up in the cattle under him, he would often rather die than be deposed. Similarly in those cases where fines are imposed and involve forfeiture of cattle, a man often, rather than part with his cows, commits suicide.

It must not be assumed that the cattle complex manifests itself with equal intensity in all portions of the region mentioned above; there are tribes where agricultural work is respected and no stigma attaches to non-pastoral types of work. It must also be remembered that, at best, the available data from the whole East African area are unsatisfactory; vast sections have scarcely been reported upon. But even where other occupations are countenanced, there is still the respect for cattle and the attitude that they alone constitute wealth. In Karagwe, before the cattle plague, the ruling Bahima (Wahuma) did nothing but care for their cattle, as in their own country, leaving the agricultural work to be done by the subordinate Wanyambo. In recent years, however, they have been forced to do husbandry, because of loss of cattle through the plague. While there were cattle, they were kept in a special enclosure in the village, and were only rarely used as food. Their milk was drunk, but the butter was used for greasing the body and the hair.<sup>105</sup> The Wasiba are fond of cattle and have many herds. These are bred for milk and butter

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<sup>103</sup> Northern Bantu, p. 101.

<sup>104</sup> *Ibid.*, p. 110.

<sup>105</sup> Kollmann, *op cit.*, pp. 48-51.

and are lodged in huts as a protection against the cold damp nights.<sup>106</sup> What cattle there are in Ussindja are tended by Wahuma, but Kollmann barely mentions them.<sup>107</sup> Because of their great value, however, they are only slaughtered in very exceptional circumstances, and they are kept for their milk and butter.<sup>108</sup>

Among the Busoga, near the Baganda, under whose rule they were for many years, while agriculture is the chief industry, and goats and sheep are of much importance, it is the ownership of cattle that gives a man real position in the community; a peasant may become a sub-chief, or a sub-chief may advance himself in position, if he can pay the paramount chief enough cattle.<sup>109</sup> Every peasant has at least one cow, and some have many. The prohibition to women of contact with the cows extends to the Basoga, although the common food taboos regarding the mixing of vegetable and meat foods do not seem to be in operation except in ceremonial cases. The Bantu Kavirondo, though principally agricultural, are

inordinately fond of their cattle, and a chief will frequently bemoan the loss of one of his cows with more genuine and heartfelt grief than he would display if he lost a wife or child.

He keeps them in a small kraal within the confines of his village, while valuable cows may share their owner's hut.<sup>110</sup> The A-Theraka are a people few in number, who, living in a restricted territory, are comparatively poor. Dundas remarks of them that "a large number of them possess no stock at all, and only the richest have any cattle." They have sheep and goats instead, which play much same rôle as cattle among their richer neighbors.<sup>111</sup> The Waniaturu according to von Sick, are not essentially cattle-keepers, when contrasted with their neighbors to the north, the Masai. They

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<sup>106</sup> *Ibid.*, pp. 86ff; see also Rehse, *op. cit.*, pp. 46-50.

<sup>107</sup> *Ibid.*, p. 110.

<sup>108</sup> *Ibid.*, p. 126.

<sup>109</sup> Roscoe, *Northern Bantu*, p. 230.

<sup>110</sup> Johnston, *Uganda Protectorate*, vol. II, pp. 741-742.

<sup>111</sup> Dundas, *History of Kitui*, *Jour. Roy. Anth. Inst.*, vol. XLIII, p. 545. See also Roscoe, *Northern Bantu*, p. 168, for similar conditions among the Bagesu.



are rather "cattle-holding"<sup>112</sup> people, and with them, as with all the tribes of East Africa, cattle are wealth; goats are their currency, for sheep and cattle, constituting, as they do, the backbone of a man's estate, and being of large value, are not utilizable as currency.<sup>113</sup> It is the cattle that are first looked to in inheritance,<sup>114</sup> and here, as elsewhere, they play an important part in obtaining a wife,<sup>115</sup> while every man tries to have a specially large and beautiful ox reserved for slaughter when he dies.<sup>116</sup> It is the same with the Wagogo, east of Lake Tanganyika, of whom Claus remarks that it is difficult to tell whether they may be spoken of as an agricultural or a herding tribe:

Wenn man indes die Liebe sieht, mit der er an seinem Vieh hängt, und damit die verhältnissmässig geringe Sorgfalt vergleicht, die er auf seine Felder verwendet, so wird man ihn zunächst als Viehzüchter und dann erst als Ackerbauer erklären. Seinen Stolz bildet ein möglichst grosser Besitz an Rindern, und wem dies Glück nicht bescheiden ist, der erfreut sich wenigstens einiger Ziegen und Schafe.<sup>117</sup>

In the case of the Waschambaa:

Vieh zu besitzen ist das Sehnen jedes Mschambaa; am Vieh hängt er mit derselben Liebe wie an seinen Kindern.<sup>118</sup>

We are given ten words used to describe color alone in the cattle, and the birth of twin calves is an occasion of great importance. The fortunate owner assembles his friends, who make merry with honey-wine and dancing.<sup>119</sup> It can be safely stated that in all the northern section of our area, wherever the conditions of the country allow cattle-keeping, these animals are valued above all other possessions as the sign *par excellence* of wealth and position.

Toward the south, the area narrows to the region between Lake Tanganyika and Lake Nyassa. Here there is the least intensive development of the cattle-complex; the cows are small

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<sup>112</sup> Von Sick, Die Waniaturu, Baessler-Archiv, Bd. V, p. 16.

<sup>113</sup> *Ibid.*, p. 25.

<sup>114</sup> *Ibid.*, p. 33ff.

<sup>115</sup> *Ibid.*, pp. 36ff.

<sup>116</sup> *Ibid.*, p. 42.

<sup>117</sup> *Op. cit.*, p. 11.

<sup>118</sup> Eichhorn, *op. cit.*, p. 99.

<sup>119</sup> *Ibid.*, p. 100.

and few in number, this being a tse-tse fly district where it is almost impossible to keep cattle alive. At the same time the desire for cattle is quite lively: thus,

when the Awemba raided as far as the Songwe river, they spared the lives of the Wenya and Wandia herdsmen to look after the captured stock.<sup>120</sup>

Stannus tells of the fondness of the Angoni for cattle, and how an old chief of the Amachingo Yao kept them from settling in his territory, where he knew they would make trouble, by telling them of the great herds on the other side of the Shire river.<sup>121</sup> Johnston says that the reason for the few cattle found in British Central Africa was not only the dreaded fly but the equal fear of raiders.<sup>122</sup> The Wankonde, at the northern end of Lake Nyassa, exhibit the cattle-complex more than any of the other tribes in this region. Among them the keeping of cattle is "a matter of national existence."<sup>123</sup> Here we see the same affection for the individuals of the herd on the part of the herders, that has been noted farther north, and the men are often utilized by other cattle-keeping peoples of the region as herders, due to their great success at this work. Although elsewhere in Central Africa cattle are not milked, they are by the Wankonde, who drink and eat the milk after it has soured. Here also milk-containers are washed in cow's urine, a custom widely distributed to the north. Again, there is the familiar prohibition of milking by women or of their having anything to do with the cattle. On the eastern side of Lake Nyassa, the Wa-Yao are reported as having cattle which are extremely wild.<sup>124</sup> They are said to keep them during the night in unroofed kraals, as do the Angoni, who also have huge herds,<sup>125</sup> but other writers on the Wa-Yao<sup>126</sup> make little or no mention of cattle. The Angoni had vast herds before the British occupation; the paramount chief, in theory, owned all cattle as he

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<sup>120</sup> Gouldsbury and Sheane, *The Great Plateau of Northern Rhodesia*, p. 403.

<sup>121</sup> Stannus, *The Wayao of Nyassaland*, loc. cit., p. 232.

<sup>122</sup> Johnston, *British Central Africa*, p. 430.

<sup>123</sup> *Ibid.*, p. 431.

<sup>124</sup> *Ibid.*, p. 432.

<sup>125</sup> *Ibid.*, p. 160, note.

<sup>126</sup> Werner, *The Natives of British Central Africa*, and Stannus, *op. cit.*

did all land, although some individuals owned cattle which they had purchased in their own right. The theory of ownership was that inherited cattle were held in trust for the families by their heads, while purchased cattle were owned outright.<sup>127</sup> Among the Achewa<sup>128</sup> individual ownership is mentioned, although details are not given. Again, further to the south, among the Awiwa, we see a further weakening of the cattle complex. Women as well as men may own stock, while the headmen have nothing to say as to the disposal of any individual's property. Among the Alungu, at the southern tip of Lake Tanganyika, the paramount chief owns all the live-stock. He distributes it among his followers to be kept by them for him, and gives them a share of the increase of his herds in payment for their services. Similarly, we are told of the existence of cattle among the Ainamwange, to the east of the Alungu, but here again no details are furnished, and the literature in general is scanty.<sup>129</sup> To the south of this narrow region, however, the cattle culture begins to strengthen again. The Batonga, living along the Zambesi, knock out their upper front teeth, giving as a reason

that their object is to be like oxen, and those who retain their teeth they consider as zebras.<sup>130</sup>

In the country of the Angoni, the young men must serve their time herding the chief's cattle before they can be circumcised or married, and *lobola*, or the cattle-dowry common to all cattle-keeping peoples in East Africa, is passed before marriage.

As one continues southward the cattle-area expands, and there comes again a greater intensification of the importance of cattle. To the southwest of the district just considered, we find the Ba-Ila, variously known as the Bashukulumpo or Mashukulumbwe. Smith and Dale, whose work on these tribes is by far the most complete account of the people of this region available, remark:

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<sup>127</sup> Coxhead, op. cit., pp. 20, 27.

<sup>128</sup> *Ibid.*, p. 30.

<sup>129</sup> *Ibid.*, pp. 32, 33, 37, 48.

<sup>130</sup> Werner, op. cit., p. 42.

Above all their possessions, above kith and kin, wife or child, the Ba-Ila, with few and occasional exceptions, love and value their cattle.<sup>131</sup>

Similar to the story about the horror felt by the Mkamba at killing a cow even when he was starving, is that told of the Mwila who chose death at the hands of invading Barotsi rather than flee and leave his cattle. Nor could the English settlers in any fashion convince the natives that cattle can be put to useful labor; to induce the old men to use their oxen as beasts of burden was almost impossible. It seemed to them merely cruelty. Words which denote types of beauty come from cattle terms, and it is a high compliment to a friend, a wife, or a lover, to name an animal after this person; after it is named, the animal is decked with necklaces and bells, and never disposed of. To part with it would constitute a grave act of discourtesy. The number of cattle owned by this people is enormous,—even after the rinder-pest, we are told, they had over seventy thousand head, the largest owners having as many as six thousand animals each. Few cattle are sold, for they are evidences of the owners' wealth, and nothing which can be given for them can take their place in this respect. A large number are killed annually for ceremonial purposes, as will be noted below, and every man who owns a herd has several special oxen marked for slaughter at his death, their bodies to provide a feast for his relations and mourners, their skins a bed for his body to lie upon.<sup>132</sup> When the dry season comes, and the usual drinking-places become dry, the cattle are taken to the Kafue river and graze there. The occasions of their departure and their return are important ones; there is much merrymaking and dancing, and ceremonials are always performed. Cattle are killed, their blood being used in the consecration of a new village, and their ownership is frequently the subject of court cases. It is not difficult to see that their place in the culture of the Ba-Ila is fixed and basic.

South of the Zambesi and east of the Kalahari desert, numerous tribes possess cattle, and the culture of this region is so similar, at

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<sup>131</sup> Smith and Dale *Ila-Speaking Peoples of Northern Rhodesia*, p. 127.

<sup>132</sup> *Ibid.*, p. 130.

least with respect to the cattle-complex, to the regions considered above, that they must be classed together. The Thonga are a tribe of Portuguese East Africa, living along the coast of the Indian Ocean and centering on the mouth of the Limpopo river. Here again the familiar elements of the cattle-complex are to be encountered. The care taken of the animals, the affection of their owners for them, their importance as the index of their owners' wealth, their use on special occasions, the restrictions of women with regard to them, are all to be noted in Junod's account of the tribe.<sup>133</sup> It is similar with the Vandou, a tribe to the north of the Thonga, between the Limpopo and the Zambesi, near the east coast of the continent. Among the Zulu and Kaffirs, to the west and south, we find similar evidences of the importance of cattle. At birth, in marriage, at death, they play their rôles. As indices of the wealth of individuals, they are again important:

Herds of cattle form the chief wealth of the natives. They form part of the hereditary estate, and cannot be parted with readily.<sup>134</sup>

In the huge military organization of the Zulu during the nineteenth century, cattle were usually the main object of the raids,—the strong central ruler laid title to all the animals in his realm, and his warriors, when not fighting, were herding his cattle.<sup>135</sup> In all this region, too, the stealing of cattle is regarded as among the most serious crimes. It is mentioned with murder as an offense against the chief, and, if the robber be caught in the act, he is punished with death, since the theft of cattle is regarded as one of the easiest ways in which public violence and war can be brought about.<sup>136</sup> Where property is inherited, it is not land or articles of use which are of the first importance, but cattle. In an account of Zulu inheritance in polygamic households, related by Umpengula Mbanda,<sup>137</sup> it is apparent, in the wealth of detailed regulation as to how cattle shall be inherited, just how far the cattle given for

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<sup>133</sup> *Life of a South African Tribe.*

<sup>134</sup> *Jenkinson, op. cit.*, p. 9.

<sup>135</sup> *Leslie, op. cit.*, pp. 32 ff. and 275ff.

<sup>136</sup> *South African Native Laws and Customs Comm. of 1883, Minutes of Evidence*, p. 5, q. 62-64 (testimony of Sir T. Shepstone).

<sup>137</sup> *Transl. by Callaway, op. cit.*, pp. 256-267.

a man's mother govern his status. A man may have two herds,—the herd he inherited from his father, and the one composed of cattle he has acquired for himself by trade, capture or as gift. The son of the great wife, purchased with the cattle of the inherited estate, is the heir and the head of the family. But the son of a woman who has been acquired with the cattle which a man earned himself is independent, and, although he may inherit none of the family estate, he is the beginning of a new house,—his mother is a "hill," which, standing alone, starts a new line among the Zulu houses. A man's status is determined entirely by the place from which the cattle given for his mother came.

Among the Kafirs cattle are specially bred, and trained to race without riders, and these racing-animals are valued more highly than any other possession.<sup>138</sup> The cattle kraal is the center of village life. It is here that justice is done, that strangers are received, and where ceremonial life takes place. In Jenkinson's description of the village, he speaks of

the almost sacred enclosure of the cattle kraal, where the cattle are penned at night, and where sacrifices and feasts of fresh meat take place.<sup>139</sup>

Among the Basuto, herds are riches:

Quiconque n'a pas du bétail est par là frappé de nullité . . . Dès la plus tendre enfance, leur imagination se repait les formes et les couleurs des bestiaux qui s'offrent à leur regards. Les petits garçons oublient leurs jeux pour discuter les mérites de telle ou telle vache. . . . Il est même les chefs qui se font un devoir d'interrompre de temps en temps le cours de leur administration pour retourner à l'occupation de leur première jeunesse.<sup>140</sup>

Rev. Dugmore remarked of the Kaffirs that their wealth consisted solely in cattle,—that every young man strove to obtain them, and that the only pay which they would take from the chiefs was cattle, since it was only through the possession of these that they were able to marry and establish themselves.<sup>141</sup> Mngcisana, chief of the Baba tribe, explained that "the succession (to the

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<sup>138</sup> Natives of South Africa, Report by the South African Native Races Comm., p. 45.

<sup>139</sup> *Op. cit.*, p. 52.

<sup>140</sup> Casalis, *op. cit.*, p. 161-162.

<sup>141</sup> MacLean, *Compendium of Kafir Laws and Customs*, p. 27.

chieftainship) follows the cattle,"—i.e., that if the great wife should have no son, the eldest son of a later wife for whom cattle from the Great Hut were given as dowry would inherit the chieftainship rather than the eldest sons of the wives married before her but with other cattle.<sup>142</sup>

With this general consideration of the area completed, it will be well to proceed to further exposition of the importance of cattle through their part in various important events in the lives of their owners. It will be found that in connection with marriage and divorce, with burial, inheritance and food customs, and in other important ways, cattle exert a deep influence on East African culture. In view of the data presented, there is ample justification for the term "cattle-complex." True, it must be noted again that the data are far from satisfactory. But enough has been written to make certain of the importance of cattle wherever they are found in East Africa, and, within the limits noted, of the distribution of these animals. There may be remarked again the weakness of the cattle culture in the central, narrow portion of the area. It is believed that this region is the bridge through which the cattle were diffused from the north and reached the southern tip of the continent. For if the assumption that all cattle in Africa have come from the north, is sound, a path of diffusion must be found.<sup>143</sup> And, since we have continuous distribution from north to south only through this narrow strip of land, it may be safely assumed that this was the path of diffusion.

*(To be continued)*

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<sup>142</sup> South African Native Affairs Commission (1903-1904), vol. II, pp. 1275-1276, q. 17, 755ff.

<sup>143</sup> Schultze believes that cattle reached the Hottentots by this path; *Aus Nama-land und Kalahari*, p. 255; see also Johnston, *British Central Africa*, pp. 249ff, for general distribution of cattle in East Africa.

## TWO PARALLEL MODES OF CONJUGATION IN THE PIT RIVER LANGUAGE<sup>1</sup>

By JAIME DE ANGULO

EVERYTHING in this language can be said in two different ways: one merely *describes* the action, the other indicates *volitional* intent.

Thus, a Pit River Indian to express the idea "I run" (the radical of the verb to run is *hom*), will say either *sahomi* (tones: high, low, high) or *lohoma* (tones: low, low, low). The first simply describes the action: I run, that is what I am doing, I am running. If you ask me what I have been doing, I will answer "*sahomi*," I was running. The second indicates purpose, will, desire, intention: I run! that is what I want to do, I want to run, I will to run, I am running! *lohoma*.

Now, for every form of the descriptive conjugation there is a corresponding one in the volitional conjugation. They are distinguished primarily by the *incorporated pronouns*; these are prefixes, or prefix *and* suffix, and form two complete parallel series. Secondly they are distinguished, but in a more complex, a less clear-cut manner, by differences in *tonal pattern*. They are also secondarily distinguished by *internal vocalic change* of the radical. This latter grammatical process is not always present.

These two modes have nothing to do with tense. Tense in this language is not used relationally, but only as a derivational concept, expressed by the suffixes *-ni* for the past, and *-gu* for the future descriptive, by the prefix *ma* for the future volitional. The verb alone, that is, without these affixes, implies an indefinite time extending from not long ago to a little while from now.

It follows as a natural consequence of this conception of the

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<sup>1</sup> The Pit Rivers occupy the northeastern corner of California. They speak two different languages. These languages are rather dissimilar in their vocabularies, but very similar in morphology. One language is spoken by the following groups of the Pit River Tribe: the Adzumawi, the Hammawi, the Atwamzini, the Astaghiwawi, the Qosalektawi, the Ilmawi, and several other less important groups. The other language is spoken by two groups who call themselves Atsuge and Aporiwa in their own tongue, and are called Hadi'wiwi and Amitsi by the others. The language here described is the first one.



volitional mode, that it includes the imperative. In other words there is no imperative in this language outside of what is implied in the volitional. But it expresses much more than merely the imperative. Similarly it follows that an "incipiative" aspect is more usually expressed in this language by the volitional than by the descriptive. In the latter case it is apt to take the form of the future. Thus when taking leave, one generally says *lupta* (high, low) "I go," not *sapte* (high, high) which means also "I go" but in the descriptive mode. The first form, *lupta*, indicates less an act of volition in this case, less an "it is my will to go" than an incipiative: "I am just this minute starting to go." The second form, *sapte*, could also be used to express "I am about to go," although it more frequently expresses "I just went" or "I am going." But to lay stress on the fact that the action has not yet actually started but will do so in the future, however soon that future may be, one uses a straight future: *saptegdzi* (high, low, high, high)—in which the last suffix *-dzi* is a verbal element indicating action as opposed to nominalization. Of course what is interesting in all this is the orientation of the concepts, so that what determines the peculiar coloring of the action for the Pit River Indian, is not so much time as the presence or absence of volition.

The conjugation of the verb "to eat" *dami* (high, high) will serve as a good example.

	DESCRIPTIVE	VOLITIONAL
I eat (him or it)	<i>sama</i>	<i>lam</i>
I eat thee	<i>hamiska</i>	<i>lhamiska</i>
thou eatest him	<i>kama</i>	<i>tama</i>
thou eatest me	<i>skama</i>	<i>stama</i>
he eats him	<i>yama</i>	<i>tsilama</i>
he eats me	<i>syamima</i>	<i>tsilamima</i>
he eats thee	<i>kamiska</i>	<i>tsilamiska</i>
thou and I eat	<i>hama</i>	<i>lham</i>
he and I eat	<i>shama</i>	<i>slham</i>
ye both eat	<i>kidzama</i>	<i>dzami</i>
they both eat	<i>eyama</i>	<i>tsindama</i>
you and I eat	<i>hamima</i>	<i>lhamidzo</i>
they and I eat	<i>shamima</i>	<i>slhamidzo</i>
ye all eat	<i>kidzamima</i>	<i>dzama</i>
they all eat	<i>yamiudzi</i>	<i>tsidamidzo</i>

BERKELEY, CALIF.

## ALANSON SKINNER

By M. R. HARRINGTON

THE Museum of the American Indian, Heye Foundation, New York, has recently suffered a severe loss in the death of an important member of its scientific staff, Alanson B. Skinner, ethnologist, lecturer, and writer on American Indian subjects. He was killed in an automobile accident in North Dakota August 17, 1925, while on a collecting trip for the Museum, among the Sioux Indians.

Alanson Buck Skinner was born in Buffalo, New York, September 7, 1885, the son of Rachel Amelia Sumner Skinner and Frank Woodward Skinner, C. E. He was educated for his profession at Columbia University and at Harvard, becoming connected with the American Museum of Natural History in New York about 1907. With this institution he remained until 1915, when he joined the Museum of the American Indian, Heye Foundation. Here he stayed until 1920, when he accepted the position of Curator of Anthropology in the Public Museum of the City of Milwaukee, but in 1924 he returned to the Museum of the American Indian, Heye Foundation, remaining a member of its staff until his death.

While Mr. Skinner studied and wrote on American archeology, particularly of New York State, he will be best remembered as an ethnologist. The Menomini tribe of Wisconsin was his specialty and was treated exhaustively in his works, but he also published many valuable books and pamphlets on other tribes such as the Sauk, the Potawatomi, the Iowa, the Cree, the Plains Ojibway, the Saulteaux, the Eastern-Dakota, and even an account of the Bribri of Costa Rica.

Skinner was a great reader, and his truly wonderful memory enabled him to make the best possible use of what he read. His general knowledge of the American field, in both archeology and ethnology, was unusually wide; and probably no one alive today has so thorough and detailed a knowledge of the Central Algonkian tribes and the Southern Siouan peoples who resembled them

in culture. On the other hand, physical anthropology and linguistics had no special appeal for Skinner; he concentrated his forces on such subjects as material culture, social organization, mythology, and religion.

His great success in field work among the tribes lay not alone in his extensive knowledge of his subject, and his background of education and technical training, but also in his love for the American Indian as a race, his admiration for their little-known ideals and achievements, his sympathetic understanding of their problems, their point of view, their outlook on life. Although without Indian ancestry of his own, it was his pride that Wyandot blood flows in the veins of his wife and of his daughter.

The Indians understood and appreciated all this; they loved him in return, and would give to him freely what they might withhold from others. And the Menomini formally adopted him under the Thunder-clan name of *Sekosa*, or "Little Weasel," which clung to him to the end, although after his marriage to the present Mrs. Skinner he received the Wyandot Deer-clan name of *Tronyetase*, or "Round the Sky."

Skinner was a valued member of various scientific societies, including the American Anthropological Association and the Wisconsin Archeological Society, an active member of the Explorers' Club, a life member of the American Museum of Natural History, a Mason, and a Shriner.

His bubbling humor, his courage, his cheerful, buoyant, radiant personality, rising above the sorrows and bereavements that darkened his private life, made friends for him everywhere—friends, red and white, who will find in his death an irreparable loss.

His parents, his wife, Dorothy Preston Skinner, and a little daughter, Esther Mary, aged four, survive him.

MUSEUM OF THE AMERICAN INDIAN,  
HEYER FOUNDATION,  
NEW YORK CITY

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## BOOK REVIEWS

### METHODS AND PRINCIPLES

*Kultur und Religion des primitiven Menschen.* THEODOR-WILHELM DANZEL. Stuttgart: Strecker and Schroeder, 1924. VIII, 133 pp., 16 pls., 15 figs.

*Magie und Geheimwissenschaft in ihrer Bedeutung für Kultur und Kulturgeschichte.* THEODOR-WILHELM DANZEL. Stuttgart: Strecker and Schroeder, 1924. XVI, 213 pp., 1 pl., 37 figs.

These two very attractive volumes merit the attention of students interested in the broader psychological aspects of culture-history. The first cited book expresses Doctor Danzel's thoughts on such topics as primitive language, society, religion, education, literature, and science. As might be expected from this range of subjects, the treatment does not in any sense purport to be exhaustive and, indeed, frequently assumes an aphoristic character. In the second volume the occult sciences of Mexico, Peru, Babylonia, Egypt, China, and India are discussed at greater length. Incidentally the author provides a very concise characterization of the cultures of the people dealt with.

The total impression conveyed by the author in the two volumes is that of a personality of refined sensibilities striving to bring cultural data into consonance with an idealistic philosophy of life. The emphasis is naturally on the psychological side of things. A characteristic point, shared by the author with our late friend Haeberlin, is the insistence on the cultural "style" as something distinct from the single constituent elements integrated by it. It is not, then, by tracing the historical fate of these several features but by sympathetic insight into the several "styles" that we can come to understand cultures. Indeed, the assimilation of alien traits is itself dependent upon the pre-existing style and constitutes a definitely *creative* process (*Kultur und Religion*, 130 sq.).

This is undoubtedly a suggestive idea but also one fraught with peril for the unwary because it very easily leads to a substitution of mystical symbols for the clear concepts demanded by science. For example, Doctor Danzel quotes Spengler's characterization of ancient Egypt. Spengler conceives Egyptian culture as presenting nothing but varieties of the "wanderer" motive: "die *gesamte* Formensprache seiner Kultur dient der Versinnlichung dieses *einen* Motives."



Notwithstanding Doctor's Danzel's reserve as to the correctness of the interpretation, the statement is obviously significant for him. I must confess with regret that for me it holds no intelligible meaning. When, on the other hand, I attempt to apply the principle to a culture I know—that of the Plains area—I forthwith encounter formidable obstacles. Thus, Plains culture might be defined in terms of, say, its pervading martial character, or of the emphasis on individual religious experiences, but neither of these traits would account satisfactorily for the great variety of social organizations or ceremonial patterns occurring in the region. To make the issue quite concrete, why do the Crow assimilate the decorative style of the Dakota as to quillwork and beadwork while their painted rawhide designs definitely align them with the Shoshone? Has their art "style" perchance a dual individuality? Lest I be misunderstood, I hasten to add that the striving for an apprehension of any culture from an insider's point of view is doubtless one of the worthiest ideals for an ethnologist. Such understanding, however, can only be secured by a re-living of a fairly large series of concrete situations: we *know* a culture intimately when we know how a young warrior courts the maiden of his choice; know what a mother-in-law and son-in-law experience when they go out of each other's way; what happens when Young-man-afraid-of-his-horses has a vision of the buffalo; and again, how a shaman reconciles his sincere beliefs with the manifestly fraudulent practices of legerdemain. To substitute for this wealth of concrete meanings a Spenglerian formula is like attempting to exhaust the meaning of a statistician's curve by a single measurement such as the mode or average.

Two other points may be mentioned. Doctor Danzel still adheres to the view that in primitive society the individual completely merges in, and is submerged by, his group (*Kultur und Religion*, 5, 68). This is a position that is rapidly being abandoned, and indeed it is untenable even in the light of older travel reports. Secondly, the author is inclined to exaggerate the gap between primitive and civilized mentality, somewhat after the manner of Lévy-Bruhl (*ibid.*, 1 sq.)

Notwithstanding these points of difference, I should again like to give expression to my appreciation of Doctor Danzel's efforts to correlate ethnological data with those of other branches of learning. He repeatedly refers to psychological phenomena of the utmost suggestiveness; for example, most of us should be glad to learn more

about the investigations by Staudenmaier mentioned by him (op. cit., 40).

The numerous illustrations are excellent, but one would like to see more specific reference to them in the text.

ROBERT H. LOWIE

*Völker und Kulturen. Erster Teil: Gesellschaft und Wirtschaft der Völker.* W. SCHMIDT and W. KOPPERS. Regensburg: Josef Habel, 1924. XII, 794 pp., 1 map, 30 pls., 551 figs.

The book before us follows Doctor Birkner's treatment of physical anthropology and Professor Obermaier's famous work on prehistory in the series entitled *Der Mensch aller Zeiten*. It sketches the history of ethnology, outlines ethnological method as conceived by the Austrian wing of the Graebnerian school, and discusses sociology and material culture from the point of view of Doctor Graebner's scheme as amended by Father Schmidt. A second volume—the fourth of the series—is to be devoted to linguistics, religion, ethics, and art, and will culminate in a re-statement of the various *Kulturkreise* with reference to the sum-total of cultural phenomena.

The chief value of the work lies, in the reviewer's opinion, in the grandiose attempt to see human culture as a connected whole. Culture is conceived as a structure erected on the primeval basis still more or less recognizable among the Pygmies. On this foundation were reared three "primary" cultures, separate in time and space, characterized as the matrilineal, the totemic, and the pastoral. Further developments resulted from a fusion of these originally disparate cultures, ultimately leading to the forerunner of the higher civilization of the Near Orient. Not only do the authors thus link the historic with primitive cultures, but a bold attempt is made to correlate these latter with the findings of prehistory (107-111). As might be expected from the authors' previous publications, a critique of unilinear evolutionism occupies considerable space but inasmuch as the attitude evinced on this point is so generally shared by workers in this country the subject has virtually lost interest. On the closely related subject of parallelism Fathers Schmidt and Koppers, consistently enough, exhibit extreme skepticism. However I note with interest that they do not reject on principle the possibility of independent invention in the case of the conical-roofed house (448). Nevertheless, most American scholars however disinclined

to accept the view of parallel *series*, would go much further in assuming an independent evolution of isolated traits. Since even very crude tribes have often demonstrably invented most successful adaptations to environment such as are not—and sometimes in the nature of the case could not—be duplicated anywhere else, a certain measure of inventiveness is established for them. Granting this, it is not easy to deny the possibility that this capacity may sometimes lead to duplication where the conditions are fundamentally alike and geographical obstacles are lacking.

An adequate consideration of the theories broached in this great work will be possible only in a series of special articles. As for a general criticism I should be inclined to repeat the old one, that the empirical basis of the primary *Kulturkreise* is far from clear. That is to say, while the scheme as a whole is admirably coherent, I still fail to see why totemism, paternal descent, initiation with circumcision and incision, sun-cult, and magic should be combined into an historical unit. It is, of course, possible to do so without contravening the laws of logic; but in what sense is there *proof* of the historically basic combination of these traits?

To select a single example, how does Father Schmidt establish the historical association of totemism with paternal descent? That the two traits are linked in Africa, is indeed an empirical fact demonstrated by Ankermann. But for other areas and especially for America the data require a number of far-fetched auxiliary hypotheses if made to fit into the scheme. For example, Father Schmidt assumes (231) that the Athabaskans were primarily divided into matrilineal moieties, this dual organization being transmitted by them to the Tlingit and Haida. So far as I know, every Americanist holds that those few Athabaskan tribes of the North that are not sibless have borrowed their definite organization from the Coastal peoples. Similarly, the view that any Pueblo tribes adopted maternal descent from the Navaho and Apache has plausibility only if one regards the original union of paternal descent with totemism as a foregone conclusion and is prepared beforehand to assume a fusion of distinct culture centers whenever contradictory facts are presented by reality.

As to sociological theory, many of the propositions advanced by the authors will be hailed with approbation by investigators in America. Personally I think that economic factors are overweighted by them and that the proved instances of a matriarchate are far

rarer than their statement would suggest. Moreover, their picture of the downfall of the matriarchate through the rise of men's clubs strikes me as picturesque rather than sound (264-283).

Two sections which the reviewer would like to see indefinitely expanded are those devoted to domestication and cultivation (pp. 502-521, 549-555). These topics are replete with psychological and historical problems of the utmost interest, while often the barest empirical data can only be ascertained with great difficulty. The hypothesis advanced by Doctor Koppers as to the reindeer, viz., that it is the earliest instead of the latest animal to be domesticated after the dog, is certain to provoke discussion.

While bound to express his doubts on a number of points, the reviewer cannot close without giving vent to his profound admiration for the work reviewed. While the presentation of all data from the angle of a special theory diminishes its pedagogical utility, advanced students will be goaded by this very circumstance into a variety of special inquiries purporting to corroborate or refute the authors' contentions.

ROBERT H. LOWIE

*Social Origins and Social Continuities.* ALFRED MARSTON TOZZER.  
New York: Macmillan, 1925. XIX, 286 pp. \$2.50

This book comprises in somewhat expanded form the Lowell Lectures delivered by Professor Tozzler in February 1924. The author's intention was to present concisely and clearly the modern "American" point of view, to the exclusion of "personal opinions and pet theories"; he has preferred "to offer a practicable and intelligible multiplication table rather than an abstract and debatable theory of relativity" (p. VIII). Two introductory chapters sketch the main theoretical problems connected with cultural history; the third chapter discusses "The Crisis in the Life of the Individual"; the remaining lectures, constituting approximately one-half the volume, are devoted to what falls strictly under the heading of "Social Organization"; and an Appendix of some twenty pages provides some entertaining data on the superstitions of undergraduates.

Professor Tozzler has been singularly successful in achieving his aim. He has killed two birds with one stone. His simple treatment of the phenomena of social organization is certainly meatier than the bald outline presented in Rivers' posthumous work and better suited for an introduction than the present writer's attempt in *Primitive*

*Society*. On the other hand, the first two chapters, while avowedly less theoretical and original than Wissler's *Man and Culture*, conveniently supplement that work by a clearer and more consistent presentation of the race question. The simultaneous use of these two books may solve the pedagogical difficulty offered by a second course in cultural anthropology: a student conversant with both will certainly have acquired an insight into theoretical problems and an understanding of a sane historico-psychological approach. Indeed, the lucidity of Professor Tozzer's exposition, together with the limited size of his volume, will probably make it, next to Marett's *Anthropology*, the most generally acceptable first introduction to cultural anthropology among up-to-date essays in this direction.

ROBERT H. LOWIE

*La covada y el origen del totemismo*. ENRIQUE CASAS. Toledo, 1924. 152 pp.

This is a very erudite collection of obstetrical customs from all parts of the world. The trouble is that the author, who apparently has culled the whole extant anthropological literature, cites so many customs, among so many peoples, besides critically reviewing all the ingenious theories from Frazer to Freud, that one somehow gets confused about the point of the book. This seems to be that in order to fool the evil spirits all the better, not only the father simulates labor, but they give the child an animal surrogate who then becomes the patron saint of the child, etc. One cannot help wondering why scientists have spent such an enormous amount of energy in devising the most extraordinarily ingenious explanations for a fact which to any one who has lived in contact with primitives, or even simply in contact with nature, is too evident to require any explanation: the spiritual relationship between man and the animals, trees, stones and elements. It is the eternal and futile attempt to rationalize the irrational.

J. DE ANGULO

#### AMERICA

*The Great Algonkin Flint Mines at Coxackie*. PARKER, ARTHUR C. Researches and Transactions of the New York State Archeological Society, Lewis H. Morgan Chapter, Rochester, N. Y. Vol. LV. No. 4., 1925.

Again the Morgan Chapter of the New York Archeological Society is to be congratulated on the publication of a noteworthy contribu-

tion to our knowledge of the archeology of the Middle Atlantic States in this valuable and interesting paper by Mr. Parker. Little, indeed, has been known concerning the sources of origin of the material from which the Coastal Algonkians fashioned their chipped stone implements. The researches of Henry C. Mercer have recorded the jasper and argillite quarries of the Delaware valley, and Houghton at least has given us a brief note on the great flint quarry at Fort Erie, Ontario, opposite the City of Buffalo, but it remained for Mr. Parker, then State Archeologist stationed at Albany to investigate and describe the flint mines which were worked by the Algonkians of the Hudson watershed, although they had been listed as an aboriginal quarry by Beauchamp as early as 1900.

The mines are situated in a great outcrop of Normanskill shale, and, to quote Mr. Parker:

The pits and excavations are in solid calcareous shale and reach down into the folded layers and pockets of precious flint rock, of which there are several grades and colors. Most of the pits are not more than six feet in diameter but so numerous are they in spots that there is the suggestion that a portion of the upper surface of the hill must have been removed in order to permit further excavation by the pit process. There are pits and more pits as we go southward, and then they apparently play out. One pit, beneath a wire fence as we leave the woods for a field now growing up to a jungle of sumach, seems to indicate a farewell, but a glance at the hillside to the west brings a startling revelation. It is a solid mass of quarry refuse for a full thousand feet, and runs down the hill for two hundred feet. The layer is deep here and we estimated that there were at least two million cubic feet of quarry dump at this one location.

We now proceed across the hill to the eastern slope. We pass a shaley knoll and bear down the slope to its wooded eastern edge. Here another surprise awaits us.

Looking through the fringe of trees we see a deep cavernous pit on the hillside. Its upper side is forty feet deep and its lower about ten. It is 125 feet long and 60 feet wide. This is the Big Brother pit from whose sides and bottom layers, the best grades of flint were taken. Even now the walls show projecting ledges just as they were left when the last ancient craftsman turned his back upon it.

Above this quarry, whose bottom is now filled with loosened rock, to the north, is a long regular dump with an even upper edge and a slope that reaches down to a shelf-like level, below which is the great eastern dump running along for a thousand feet and extending downward to the base of the hill.

To the south and a bit to the east of Big Brother is the Little Sister quarry, about 80 feet in length. The dump borders its eastern edge and extends down the hill.

From this excerpt an idea of the size and extent of the quarries proper may be gathered. Spalls, rejects, and blanks, to say nothing

of finished implements occur for many acres. Other objects than flint implements are scarce, but Mr. Parker and his field party recovered one copper chisel and a mortar and pestle, but did not find pottery nor the usual village debris.

The reviewer, who has seen the collection made by Mr. Parker at Albany, regrets that the former does not figure and describe the four remarkable amulets found by his helper, Mr. Jefferson Ray, near some neighboring springs. Mr. Parker merely mentions them in passing, yet they are most unusual and remarkable. They are of added interest, as similar amulets have been found at the great argillite quarry near Raven Rock, on the Pennsylvania side of the Delaware river, and may perhaps represent Algonkian offerings to the underworld Manitous who controlled the quarries.

It is hoped that the State of New York will take over the quarries as a State Reservation, as suggested by Mr. Parker in his brochure.

ALANSON SKINNER

*The Central Caribs.* WILLIAM CURTIS FARABEE. University of Pennsylvania. The University Museum: Anthropological Publications, Vol. X. Philadelphia, 1924.

It is particularly fortunate that Dr. Gordon could find it possible to issue this important work of Farabee, which narrowly escaped being lost on account of the author's illness.

This work covers the greatest body of Carib existing and will, therefore, be a full, reliable, and permanent reference to these Indians. Judging from the suggested widespread distribution of the Carib, they would appear to be analogous with our far-ranging Shawnee. The bulk of the ethnological observations are on the Macusi, a populous and virile tribe, isolated and very slightly modified. Dr. Farabee believes that this tribe is capable of assimilating modern civilization without detriment.

The tribes described in more or less detail as to environment and material culture are the: Macusi, Waiwai, Waiwe, Parukutu, Kut-cifina, Chikena, Katawian, Diau, Tonayena, Wakera, Kumayena, Urukucena, Apalaii, Macara; tribal remnants of the Zapara, Azumara, and Porokoto.

There are some notes on the names and locations of other tribes derived from native informants and travellers.

The closing chapter is devoted to the anthropometry of a number

of the tribes mentioned. It represents a great amount of work and is very valuable for reference. A bibliography, 38 good plates, and an unusually accurate map accompany the paper.

Few men have done more to elucidate the arts, customs, and physical anthropology of South America than Farabee.

In the work of Koch-Grünberg, Ling Roth, Erland Nordenskiöld, and Farabee, we have excellent data on a large region in northern South America.

WALTER HOUGH

## ASIA

*Les récentes découvertes préhistoriques en Indochine.* M. R. VERNEAU. (Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, t. 179, no. 7, 18 August, 1924, pp. 416-418)

In this note Doctor Verneau reports recent finds in Tonkin and Anam, which indicate Neolithic and even Paleolithic stages of culture in this region. In at least two caves the lower strata yield, not the carefully polished implements of the recent Neolithic period but hatchets ground only at the edge, if at all. At Keo-Thay scrapers and amygdaloid tools have been unearthed, the material being mainly rhyolite. Skeletal remains suggest a mixed population, of partly Indonesian, partly Papuan and even Negrito affiliations.

R. H. LOWIE

## OCEANIA

*The Social and Political Systems of Central Polynesia.* R. W. WILLIAMSON. Cambridge University Press, 1924. Three volumes. Pages xx, 1421. (Price, 75s. net)

A long-felt want has been filled at last by Mr. Williamson's voluminous monograph on "The Social and Political Systems of Central Polynesia," i.e. Polynesia exclusive of Hawaii and New Zealand. Between the covers of his three volumes the author has marshalled the pertinent published data on his subject down to 1914 in most cases and to 1923 in the case of material published in certain periodicals. To these assembled data are added the author's interpretations. The task of interpretation was no easy one, for the sources vary enormously in quality, date from many periods, are recorded by good, bad, and indifferent observers, and from a dozen viewpoints.



With all of these difficulties to contend with, the work is indeed a monument to patient, painstaking study and intelligent interpretation.

The author's style is pleasing, although at times verbose. He writes in straightforward, simple English and takes great pains to elucidate obscure points. Throughout, he carefully differentiates his opinions from those of his sources. Where two sources cover the same ground in such a way as to leave the student in doubt as to the exact situation, Mr. Williamson brings his wide knowledge to bear to clarify the situation. His discussions and conclusions never bear the stamp of dogmatism, but are always carefully qualified, but sometimes to the extent of leaving the reader somewhat "at sea."

Fourteen pages of preface and six of bibliography pave the way for the work. Between one quarter and one third of the treatise is devoted to Samoa, the group from which the fullest information was forthcoming at the time that Williamson prepared his material. In spite of the vastness of the work with its fourteen hundred odd pages all difficulties of reference are overcome by a very complete index which comprises the last eighty-seven pages of volume three.

Chapter 1 discusses the theories concerning the place of origin and the migrations of the Polynesians. The theories of Percy Smith, Fornander, Churchill, Tregear, and Rivers are discussed and to a certain extent the author correlates them. Critical attention is given to the various computations of time of the theorists, and Williamson concludes that the dates of the various occurrences were not so distant as is suggested by Smith. Mr. Williamson assumes that the "Rarotongans" of Smith were the introducers of the worship of the god Tangaroa, and substitutes the term "Tangaroans" for them, a more desirable term than "Rarotongans" with its geographic implications.

In summing up his quotations concerning migrations, Williamson assumes a cautious, non-committal and to the reader, unsatisfactory attitude. He writes: "The foregoing account of migrations is merely a repetition in abridged form of some of that given by Smith, and in part by Fornander. A good deal of it, especially so far as details are concerned, is more or less speculative in character, and it must not be imagined that, in introducing it as I have done, I am assuming its accuracy. I am not now in a position to express an opinion one way or another, and very likely I never shall be so. The importance of the account lies in the fact that, whether it is right or wrong, it is based upon a study of actual Polynesian traditions, and it is the only full or

consecutive account of this character (other than previous articles in the *Polynesian Journal*, from which much of its matter is taken) that has been published." (I, 36).

With the chapter on origin and migrations finished, Williamson devotes the bulk of Volume 1 to a presentation of political areas and systems. He covers Samoa, Tonga, Society Islands, Hervey Islands, Marquesas, Paumotu, other western islands, other eastern islands, and certain Melanesian islands which have Polynesian connections. Chapters 3 and 6 are devoted to the author's ideas as to early events in Samoa and the Society Islands.

Chapter 6 on "Some Possible Early History of the Society Islands" develops the view that the worship of the god Tane preceded that of Tangaroa and his son Oro. The author writes in conclusion: "I imagine that the worshippers of Tangaroa and Oro would be in the main descendants of the people whom I am calling the Tangaroans and whom I have discussed in connection with Samoa—assuming, of course, that my Samoan hypotheses are sound, which may or may not be the case. Who in that case were the worshippers of Tane? They may have been some of the people whom I have called pre-Tangaroans, and I may say as to this that Tane seems to have been a god of very great antiquity" (I, 249).

Volume I is concluded with a chapter entitled "Political Areas and Systems (Observations)." Therein are discussed sacred and secular kingship, conquering and conquered parties, a possible explanation of past political evolution, triple division of rule, alternating succession to kingship, and the kingship of all Samoa. Williamson is careful to point out that which is sometimes overlooked, namely that a so-called secular king may also be sacred, though the degree of sanctity would be less than that of the contemporaneous sacred king.

As to the origin of the so-called secular kingship in Polynesia Williamson has the following to say: "Prior to that time (time of separation of sacred and secular offices) the groups of people over whom these kings had ruled were probably relatively small, and their political organization simple. The dual task would not then be great, and there would be no serious motive for wishing to reduce it. In course of time, however, a group would become larger; sub-groups would form themselves, and the social organization would become less simple, and would spread over a wider area, thus requiring more extensive administration. Thus the duties of the king would increase;

he might wish to depute some of them to another person—probably a near relative of his own—he retaining the sacred office, upon which his power was based, and the ultimate control over the secular matters committed to his deputy. This devolution might almost be expected to include military matters to a greater or less extent, as the king's main duty would probably be to pray; and if the king were an old man, or had suffered from the degeneration referred to above, it might well be that there would be a special reason for delegating the responsibility of seeing to the preparedness of his people for war, and the generalship of his army in time of battle, retaining for himself the great religious duty of praying to the gods for success. I am not in this picturing what I conceive to have been a single act; I am imagining a process of devolution and evolution which might extend over centuries, during the lapse of which the separation of sacred from secular duties might become intensified; virile and ambitious secular kings, as I may now call them, might strive to extend their power, and the position of the sacred king might become little more than that of the high priest, though in this capacity he would probably still retain, at all events at first, immense power" (I 426, 427).

Williamson's argument for an alternating succession to secular kingship has little real support insofar as he depends upon Tongan data.

In Volumes 2 and 3 the author settles down to the discussion of the various aspects of society in Central Polynesia, to wit: social and local grouping, the marae as a social centre, matrilineal descent, exogamy, special relationship matters and terms, totemism, clan badges, the social character of war, the chiefs, the middle and lower classes, priests and sorcerers, council meetings, administration of justice, connection between the sacred and secular offices, the sanctity of chiefs, the powers of chiefs, the relationship between the classes of society, names and titles, testamentary appointments to family names and titles, elective appointments to family names and titles, deposition, some beliefs as to names and titles, land tenure and control, control of food supply, tribute and cognate matters, succession and inheritance, the head of the social group. The comprehensiveness of the work is obvious from the list of chapter headings just quoted.

Having referred to the author's opinion in the matters of the peopling of Polynesia and the origin of the sacred and secular king-

ships, attention may now be given to other important phases of society which he considers.

After reviewing all of the evidence Williamson inclines to the belief that the distinction between the classes of chiefs and orators was not nearly so exact and clean cut in either Samoa or Tonga, or indeed in Polynesia generally, as some writers would lead us to suppose (II, 37). He goes even further and says: "I do not think it is possible to draw any defined line of demarcation between a chief and a member of the middle classes, because I do not believe there was such a line, the middle class people having in fact been, as a rule, related, closely or distantly, to their chiefs" (II, 356). After further remarks he concludes the paragraph by saying: "It must be understood therefore that I am here treating what I call the chiefs separately from the middle classes merely for the purpose of convenience."

Chapter 33 deals with the relationship of the classes of society and is of especial interest because of its bearing upon the widespread notion of a caste system in Polynesia. In the first place the theory of a conquering caste of rulers is disposed of (III, 137): "I think, however, we may assume that, recognizing that the Polynesians are the descendants of two or more ethnic groups of ancestors, the process of intermixture must have taken place in the very distant past; and if this was so, though the descendants of the mixed groups would display the physical characteristics of one or another of their ancestral groups in an ever varying degree, it seems to me inconceivable that we should find, after the great period of time that must have elapsed, that the chiefs were the more or less pure-bred descendants of the conquerors, and the other people were those of the conquered, and that thus the difference of complexion had survived as a class distinction. I shall therefore assume, for the purpose of considering the relationship between the several classes of Polynesian society, that, whatever their ancestors may have been, they had become a substantially homogeneous race." In the second place the author demonstrates how so-called commoners may be related to chiefs (III, 139). With the Samoan evidence he demonstrates the probability that there were no hard and fast lines between the classes but that all classes were bound together by the ties of relationship. Tonga is mentioned as producing further evidence pointing in the same direction. For the Society Islands the evidence is lacking, but the author feels that a similar system of relationship prevailed there.

Chiefly upon the basis of the fuller data from Samoa Williamson

considers that the grouping of people throughout central Polynesia was probably fundamentally social even in cases in which evidence actually available is insufficient to determine this (II, 59). He devotes Chapter 15 of Volume II to the consideration of the *marae* as a social centre. He thinks that there was a close association "between a *marae* and a family or other social group, the *marae* belonging to the head of the group, and only members of the group being admitted into its sacred precincts. In this way the *marae* became what I have called a social centre, by which I mean the religious, ceremonial, and, in a way perhaps, secular central object that formed the visible sign and record of recognition of title and social relationship—a sort of family title deed" (II, 60). Later in this same chapter (p. 84) the author says: "I think I have shown that the constitution of a Samoan *fono* was essentially social in character, and I regard the ancestral posts as comparable, so far as they go, with the stone seats in the *marae* of the Society Islands, and as similarly supporting the idea of social grouping."

In discussing the matter of descent Williamson assumes a position which is no longer tenable when he speaks of the *archaic* system of matrilineal descent (II, 87). In dealing with the evidence for matrilineal descent in Polynesia he builds what would at first glance appear to be a strong case, but in doing so he completely neglects the possibility, or better, probability, of Polynesian institutions having been affected by ideas diffused from Melanesia. The great importance of sisters in Polynesia is the key to the argument for matrilineal descent. The data which are adduced cannot, however, be considered in this brief review. In the opinion of the reviewer, the priority of matrilineal descent is not established by the author. That it co-exists with patrilineal inheritance of titles is a well-known fact, but that the two ideas bear an evolutionary relation one to the other has not been established and, if the agency of diffusion has been operative, such evolution cannot be established in Polynesia.

In the matter of exogamy the author also proceeds to his discussion on the premises of a threadbare theory. He says: "I presume that the prevalence of a classificatory system of relationship in Polynesia is presumptive evidence of exogamy in the past" (II, 124). Presumably by exogamy he means sib-exogamy.

The two chapters on relationship matters and terms are a careful synopsis of a difficult subject.

Although totemism proper is apparently non-existent in Polynesia

the author employs the term as a handy designation to cover a number of Polynesian concepts. The author takes full cognizance of the fact that he is not dealing with what is usually called totemism. He writes: "The main feature by which the Polynesian system differs from true totemism is that the animals and objects were regarded as being incarnations of or associated with gods, which is not a feature of totemism" (II, 217). "It must be understood, however, that in using the terms (totem and totemism) I am not suggesting that the subject with which we are dealing is true totemism" (II, 218). Altogether one hundred pages are devoted to "totemism". The author's position with regard to the genesis of Polynesian totemic-like phenomena is summed up in the following sentence (II, 309): "As already intimated, I do not propose to enter in this book into the discussion of the probable connection between the idea of a god incarnate or immanent in some animal or other object and a true totem; but it can hardly be doubted that, whatever that connection may have been, the beliefs and practices of the Polynesians with reference to those gods, as represented by the animals or other objects with which they were associated, must have had its origin in totemism, or in ideas similar to those upon which totemism has probably been based."

When the matter of clan badges is discussed the use of the term "clan" is obviously loose, for the social group that is referred to by this term is not defined. The author means by "clan badges" those objects or designs especially connected with specific groups of people. That true clans or sibs existed in Polynesia the author does not assert. The social character of war, however, he considers as a distinct "clan" idea, all of which fits in with his belief that the tie binding each group was primarily social (II, 329). Finally it should be observed again that, although the author speaks frequently of "clans" in his chapter on the social character of war, nowhere does he define what he means by the word "clan," nor does he say anything as to the manner of descent in "clans."

In his chapter on chiefs, the author further emphasizes his belief in the prevalence of social rather than political relationship between a chief and his subjects. He says: "I look upon the whole subject (of chieftainship) in the light of my belief that the grouping of the people was primarily social, the connection between a great chief or king and the chiefs of the several separate districts forming his dominions, and between the latter and the chiefs or other heads of villages in those districts, and between these again and the domestic

households within the villages, being primarily and in the main one of social relationship" (II, 356).

The author's ideas as to the origin of Polynesian chieftainship lead him to "believe that at one time the concentration in a head chief, of sacred duties and secular rule was usual among the Polynesians or their ancestors, more or less remote; that the high priest was the head chief; and some of the islands offer, as we have seen, indications that this had been so. Presumably the foundation of his power was religious. Just as in Melanesia a man, according to Codrington, became a chief by virtue of the belief that he was possessed of *mana* derived from a spirit; so in Polynesia, with its theism, his holding of his high office may well have been based upon a belief as to his supernatural powers derived from the gods, and his power of approaching the gods, learning their wishes and intentions, and assuaging their anger and securing their help by sacrifice and prayer" (III, 55). That the so-called sacred and secular kings are fundamentally alike, is indicated in the author's statement that "chiefs, as a class, were more or less sacred, according to their rank, this sanctity having, as I interpret the matter, been due to their close association, as heads of their respective social groups, with the gods of those groups, of whom they, and indeed all heads of groups, down to the fathers of domestic families, seem to have been the natural priests" (III, 57). The chapter dealing with the powers of chiefs, treats the subject from a number of angles—religious, administrative, parliamentary, consultative, military, diplomatic, judicial, and personal.

Land tenure and control is considered in the light of the conception that the "ownership by the head of a group was a fundamental principle, affecting the land of social groups both great and small."

The confusion of Polynesian practices as to descent, succession, and inheritance is carefully avoided by our author, an avoidance which is very necessary if one is to comprehend the situation in which descent of rank may be reckoned matrilineally, yet succession to office pass patrilineally. But when the author states that "the subject of the evolution, out of the more archaic [matrilineal] system, of the rights of the father, is also a general one, not confined to Polynesia" (III, 386), not all anthropologists will agree with him. The author assumes that in the distant past, systems of true matrilineal descent, with the accompanying matrilineal succession, and of exogamy, prevailed among the ancestors of the Polynesians. He disregards, as already mentioned, the possibility of matrilineal fea-

tures being superimposed upon patrilineal features through the agency of diffusion.

Perhaps there is no greater compliment to pay an author than to use his work. In connection with the reviewer's own Polynesian research Mr. Williamson's monumental work is eminently useful. Closer and closer acquaintance with it enhances one's respect for the author's patient industry, his clear recognition of problems, and his suggestions as to likely interpretations.

E. W. GIFFORD

*De Pandji-Roman.* WILLIAM HUIBERT RASSERS. (Doctor's Dissertation of the Leiden University.) Antwerp, 1922.

This book is the outcome of a scholarly investigation into the origin and meaning of the Pandji legends of the Indonesian Archipelago. These legends form the subject-matter of many of the puppet and mask plays of the Javanese theater, but their distribution is much wider than the island of Java, reaching Sumatra, Bali, Lombok, Celebes, Borneo, and even as far as Cambodia. There are a great many different versions in circulation, but, although varying in detail, they are identical in central theme.

The story of Pandji is the story of a twir brother and sister, children of a god, who, brought up in different localities and unaware of their real relationship, fall passionately in love with each other. They descend to the earth, and in the incarnation of a prince and princess of Java the lovers undergo trials and hardships, and are forced to overcome many difficulties and endure great suffering before they can finally be united in marriage.

These Pandji legends have before now been the subject of research, but mainly with reference to two problems, namely, the problem of a possible historical background and the problem of the influence of Hindu epic poetry. The author of this volume is of the opinion that the researches in these directions have not been fruitful. While they have revealed a few much distorted historical elements and a few partially assimilated borrowings, they have not led to an understanding of the origin and fundamental character of these stories.

A third line of approach has been suggested by the idea that the Pandji legend might originally have been an astral myth with the sun and the moon as the main figures. After having disposed of the



former modes of approach, the author undertakes an inquiry along these lines. The idea that the story of Pandji adventures is an astral myth proves, however, no more satisfactory than the notion that it is an historical legend or a Javanese transcription of a Hindu epic. That interpretation leaves most of the characteristic features unexplained and raises more questions than it solves. But it is the critical study of this hypothesis which leads the author to his interesting discovery and to a satisfactory explanation of the story. Its oldest layer turns out to be, not an astral myth, but a totemic creation myth, depicting the creation of the Javanese people, their exogamic organization, and their initiation ceremonies.

The royal lovers figuring in the story, partaking both of the human and of the divine, but in essence the one an animal and the other a flower, destined for each other but united only after much suffering and hardship, represent the father and mother of the Javanese phratries, whose marriage was possible only after a successful endurance of initiation rites.

After the exogamic, totemic organization of Javanese society had disappeared, the people lost touch with the essential meaning of the surviving myth. Elements of a moon and sun mythology and even legendary events of early Javanese history were interwoven in the original plot until it grew into the elaborate Pandji cycle which forms to-day the repertoire of much of the popular drama. But that the oldest basis of the Pandji cycle is a pure totemic creation myth and that therefore the Javanese people once lived in a totemic society is, according to the author, without doubt.

The reviewer, although he does not feel qualified to judge the validity of the central thesis of the book, is sufficiently impressed by the scholarly treatment of the subject to warrant the opinion that the author has made out a strong case. Whatever the ultimate judgment of the author's specific interpretation of the Pandji cycle, the book as a whole seems a valuable and highly suggestive contribution, which cannot fail to influence not merely the study of Indonesian folklore and myth, but also the study of early Javanese society.

NICHOLAS J. SPYKMAN

*Unter den Zwergen von Malakka.* PAUL SCHEBESTA. (Reichspost, Wien, May 10, 1925, p. 9 f.)

Under this caption Father Schebesta briefly reports on the religious conceptions of several Pygmy tribes investigated by him

during more than a year's residence in the Malay Peninsula. The majority of these seem to be Negrito, but one group, the Ple, hitherto unknown to science and even to missionaries, is characterized by light pigmentation and well-developed beards. Possibly the most interesting data were secured from the Ple. Their deity is feminine,—Grandmother Pudeu. She is the creator but also the destroyer of the universe, for at some future time she will blow terrific winds and cause a deluge. A new world will then come into being, but without trees or wild beasts, and the good Ple will return from the underworld presided over by Pudeu and will lead a carefree existence henceforth. The evil souls are boiled by the goddess until they are cleansed of every blemish. She pulls out one soul after another for inspection and transforms them into a beast or bird, the evil ones turning into fog and wind and never coming back to the earthly paradise.

Ethnologists will certainly look forward with eagerness to Father Schebesta's further reports, which will presumably appear at length in *Anthropos*, whose editor, Doctor Koppers, has kindly placed at the writer's disposal the article noticed above.

ROBERT H. LOWIE

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## DISCUSSION AND CORRESPONDENCE

### NOTES ON THE ARCHAEOLOGY OF THE GOBI

BY N. C. NELSON

*Editor's Note.* The Third Asiatic Expedition, conducted under the auspices of the American Museum of Natural History of New York City and in charge of Roy Chapman Andrews of the same institution, this year (1925) broadened its scope of investigation sufficiently to include prehistoric archaeology. Mr. N. C. Nelson of the Museum's anthropological staff, who accompanied the Expedition into Mongolia for a period of five months, sends us a clipping from the *Peking Leader* of September 27 covering in a summary way all his observations. We quote the clipping in the revised form suggested by Mr. Nelson.

The traveler who today crosses the Gobi Desert must, like the members of the Third Asiatic Expedition, wonder a little how primitive man could have maintained himself in a region so relatively dry and barren: living springs and streams are few and far between; fuel, in the ordinary sense of the term, is or was probably even more scarce; the plants and animals suitable for human consumption are either limited in number or difficult to obtain; and raw materials necessary for the production of even rudimentary tools and weapons occur hardly at all in most places. In short, the inducements for early man to have entered the Gobi Desert proper are hard to discover—unless, like ourselves, he was desirous now and then of investigating the unknown. That this impulse moved him I am myself strongly inclined to believe; for, you will be surprised to learn, we made hardly a single stop which did not yield us some evidence of the former presence of one or more of the recognized pre-historic human cultures.

But having said this much, it is still to be granted—in fact insisted upon—that the amount and character of the cultural evidence found, varied directly with the nature of the environment. In other words, Mongolian conditions nicely illustrate for us the fact that the relation between Nature and primitive man is almost as close as is the relation between any other organism and its environment. This is one of the justifications—if justification is necessary—for including archaeology in the Expedition program.

As to precise archaeological results, the Expedition this season found traces in Inner and Outer Mongolia of at least four successive,



but not all closely related, culture stages. By stretching matters a little we might perhaps lay claim to six culture levels.

1. The latest or uppermost of these levels was purely Mongol in character, and the objects—made of stone, wood, antler, and burnt clay—even though sometimes dug out of cave deposits or found on long abandoned dwelling sites, had nothing about them to distinguish them from similar devices in the hands of the nomads now living in the region. The age indicated would range from mere decades to at most a few centuries.

2. The second level was pre-Mongol or proto-Mongol in character. The remains of this culture occurred also superficially, i.e., on the surface of the ground, and consisted of circular and rectangular stone inclosures, as well as of actual mounds or large conical heaps of stone. Naturally, these structures were found only in localities where rocks were present, such as along the base of the mountains or in the vicinity of minor outcrops, and associated with them very commonly there were a good many petroglyphs or designs cut into the weathered surface of the living rock.

Nearly all of these designs were in fact pictures of either human beings or of animals such as the antelope, the ibex, the stag, the horse, some of which do not occur in the region now. In two or three instances a man was depicted as holding or leading a horse, from which we inferred that the people who executed these crude pictures had the horse domesticated. Another tell-tale design, observed five or six times in widely separated places, was a human figure in the act of shooting the bow and arrow. The obvious inferences were later verified by our opening up about sixteen of the stone structures, which in most cases proved to be or to have been actual graves. In several of these we found exceptionally well-preserved remains, both skeletal and cultural, and in one instance both the saddle and the bow and arrow were present, as well as a quiver of birch-bark, arrowpoints of iron, textiles, and a wooden bowl. The generally weathered and worn condition of both the graves and the rock pictures assures us that this culture dates back at least a good many centuries and probably bridges for us the so-called Bronze and Iron ages. Its origin is no doubt to be sought in the headwater region of the Yenisei, on the opposite side of the Altai mountains.

3. The third and fourth culture levels, and the ones for which we have the fullest and most satisfactory data, are respectively of Neolithic and Mesolithic types. These two closely related culture stages

were found repeatedly in geologic deposits regarded by Professor Berkey and Dr. Morris as probably of early post-Glacial date, sometimes separately and sometimes together in contiguous or superposed strata. The uppermost is characterized by pottery of the hand-made order, decorated by geometric designs applied in various ways, such as imprinting and incising and modeling; by rubbed or ground and partly polished stone implements and utensils, such as metates, mortars and axes; and above all, by chipped stone tools and weapons, such as scrapers, knives, drills, spear and arrow points, in addition to a large amount of workshop waste in the shape of raw cores and flakes, some of which may have been used as implements.

4. The lower or Mesolithic level resembles the Neolithic in enough respects for us to say that it is organically related to it, i.e., is ancestral to it; yet it differs from the Neolithic in exhibiting no pottery, no true polished stone implements, and no arrowpoints. In place of these items it carries a vast number of small, slender, oblong, highly specialized flakes the specific use of which is not entirely clear. The cores from which these flakes were produced, by pressure, are also very abundant. Another distinguishing characteristic is the presence of drilled disc beads made of struthiolites shell and even pendants made of fresh-water (Grabau) bivalve shells. Some of these beads, it may be added, are decorated with geometric designs. Strange to say, of bone or antler implements belonging to these two closely related cultures we found scarcely a trace. Indeed, we found only a few bones of any kind, and these were but slightly if at all fossilized and have not as yet been identified.

The chipped stone remains representing these two related culture stages were fairly abundant over an area more than two hundred miles in width, and in certain spots—favored more or less by the presence of water and firewood—they lay strewn so thickly that it was possible for four or five of us in the course of a short forenoon to pick up over 15,000 specimens. Needless to say, only a small percentage of these were actually finished implements, the majority being nothing more than workshop refuse. Nevertheless, the amount of artifact material, the character of the true implements, together with their mode of occurrence in stratified deposits, warrant the conclusion that we have here at least one distinctly new phase to be added to the already known prehistoric cultures of Asia. By actual stratigraphic position and also by the specific character of certain of its implements

our pre-Neolithic culture complex is in French terminology equivalent to the Azilian culture of Europe.

5. The fifth culture level was indicated by isolated finds on an old gravelly land surface of Quaternary date in the Orok Nor lake region, some 900 miles out on the route. Our finds consist of a number of large, generally crude, and well weathered stone implements, such as knives, scrapers, and choppers. These implements are all of the chipped and flaked variety and strongly resemble certain European forms of Mousterian and Aurignacian dates. Unfortunately, none was found *in situ*, and their discovery serves chiefly to stimulate further investigation.

6. A sixth and last cultural level—on which I lay no stress whatever—is suggested by the discovery, chiefly in the same Orok Nor region, of a large number of more or less sharp-edged stones which showed one or more chips removed from the edge, much after the manner of artifacts. The specimens are apparently examples of the much-discussed eoliths of Europe, in other words, nature-made implements supposed to have been used by our pre-human ancestors. Indeed, it would seem as if the Gobi Desert in certain places furnishes the conditions necessary for the production of eoliths of pseudo-implements and that our discovery may serve to throw some real light on an otherwise long and fruitless discussion.

N. C. NELSON

#### CONCERNING *Human Origins*

As author of *Human Origins*, I wish to thank N. C. Nelson and C. D. Matthew for their very appreciative reviews in the July number of this Journal. I should stop at this but for the desire to throw some light on certain statements by the reviewers which might otherwise lead to misunderstandings.

Nelson says

It does not seem quite correct to group the Campignian with the Azilian-Tardenoisian

I don't. If he will look again he will find the Campignian in the chapter entitled "The Neolithic Period." He was probably misled by the last two words (which should be stricken out) of the legend for Figure 261. He also says he has

been told of the omission of certain important Paleolithic stations in Austria. If he will look under the lists of stations credited to the countries

bordering on or comprising what was part of Austria before the World War, he will probably find the missing stations. I have credited to the neighboring countries the stations in territory ceded to these countries by the Treaty of Peace in 1919.

Nelson questions

the advisability of some of the French terminology which has crept in, such as *couche*, *mélange*, *non-remanié*, *pression*, *champhere*.

The last must be intended for *champlevé*, since *champhere* occurs neither in *Human Origins* nor in the dictionary. The word *couche* was used only in the nature of a quotation and was explained by a footnote (page 365, Volume I). The other words, including *champlevé*, are all in Webster, the Standard, and The Century. Moreover, these words can scarcely be classed as belonging to the "terminology" of the subject in question.

Matthew objects to the assumption that such stations as Drachenloch in the Alps, 2445 meters above sea-level, were occupied only during an interglacial stage, and thinks

even the severities of a glacial stage could hardly have offered insuperable difficulties to hardy Paleolithic hunters adventuring into the mountains in summer in quest of food.

In search of food, the Paleolithic hunter followed the line of least resistance; a food quest requiring days to accomplish over ice fields and up to such great heights would be a stunt worthy of those with present-day equipment at their disposal and who hunt as a pastime. Assuming that Paleolithic hunters were capable of performing such a feat, they would have carried their tools with them; some of these would have been left in the cavern. But at Drachenloch all the stone tools are made of the stone in which the cavern was formed. In a more recently discovered cavern, about 1600 meters above the sea and almost in the heart of the Alps, the stone implements are made of material which occurs at the bottom of a nearby valley. It would certainly take a hardy hunter to dig 1000 feet through the ice in order to obtain stone for artifacts. Why not let him dispute with the cave bear the possession of these elevated caverns under more favorable climatic conditions, such for example, as the peaks offered during an interglacial stage?

Matthew regrets that in describing the fossil human remains the skulls pictured were not posed according to the Frankfort convention, so that the actual degree of prognathism and other features mentioned in the text might have been more apparent.

The report of the Anthropometric Commission appointed by the last International Congress of Prehistoric Anthropology and Archaeology (Geneva, 1912) included the following Resolution which was unanimously adopted by the Congress:

Resolved that for the graphic representation of skulls anthropologists employ the horizontal plane either of Broca or of the Frankfort agreement.

I was a member of this Commission and that was the best we could do in 1912.<sup>1</sup> All the fossil skulls reproduced in *Human Origins*, which are complete enough to make orientation possible, with one exception, are posed according to the horizontal plane of either Broca or the Frankfort agreement; that one exception is the skull from Broken Hill. As it was impossible for me to obtain permission to re-photograph this skull, I made use of the photographs which were sent to me by those in charge of the original. Unfortunately for American authors all the known fossil human skulls are on the other side of the Atlantic and are practically inaccessible so far as freedom to make one's own illustrations of them is concerned. If all the fossil human skulls were in one museum and I were in charge of that museum, photographs (or drawings) of these skulls sent out for publication would all be taken according to the Frankfort method of orientation. That I do not underestimate the value of proper skull orientation is sufficiently emphasized in my recent paper on "Aspects of the Skull: How shall they be represented?"<sup>2</sup>

Matthew states that

a few phrases such as the 'prow lines of the stern,' or 'some rodent, probably the marten,' are obviously oversights such as will at times escape the vigilance of author and editor and slip into the best regulated book.

She is right. The manuscript read: "prow lines and the stern," and "some rodent, or probably the marten." If it is permissible for reviewers to focus the attention on such slips, may I not yield to the same temptation and point out that five slips occur in five successive lines (page 455) of Matthew's review.

GEORGE GRANT MACCURDY

#### A REPORT ON MICHIGAN ARCHAEOLOGY

The archaeology of Michigan has never been systematically studied. One reason for this is probably the prevailing opinion

<sup>1</sup>AMER. ANTHROP., XIV, 621-631, 1912.

<sup>2</sup>Amer. Journ. Physical Anthropology, III, 77-81, 1920.

among Americanists that the field is not sufficiently inviting. Another reason is that no person, organization, or activity within the state has ever taken interest enough in the subject to give it continuous attention.

The writings of Schoolcraft, Bela Hubbard, Henry Gillman, M. L. Leach, W. L. Coffinberry, Charles Whittlesey and John T. Blois of over two generations ago, and of Harlan I. Smith twenty-five or thirty years ago, and Cyrus Thomas's *Catalog of Prehistoric Works*, of 1891, and scattered articles of not much more recent date in the *Michigan Pioneer and Historical Collections* constitute the bulk of the literature. Since Mr. Harlan I. Smith was called from Michigan in the middle nineties to engage in archaeological studies for institutions more earnestly in the subject than any Michigan institution until two years ago, more damage than good has been done to the antiquities of the state. At present, the Museum of the University of Michigan has a small staff undertaking to revive interest in the subject and to carry on some preliminary surveys.

Never, at any time, has there been made more than a casual and half guess-work invoice of what the state possesses in the way of archaeological material. It has been known for a great many years that the copper mines on Keweenaw Peninsula and Isle Royale are an outstanding feature of Michigan's resources, but little has been done to study them archaeologically since Charles Whittlesey made his report in the *Smithsonian Contributions to Knowledge* in 1862. The garden beds that seem to have been unique in their plotting and construction are entirely destroyed. What we know about the trephining of skulls, that is, boring a hole into the skull before death, is based almost if not entirely upon one specimen. There is reason to believe that the people who developed the greater part of the mound and pottery culture in Ohio extended into the valley of the Grand River of Michigan. A casual survey made during the last summer would lead one to look even farther north for the limits of this culture. There is ample historical evidence to show that the Iroquois, coming probably from both sides of the St. Lawrence River, invaded the Lower Peninsula of Michigan.

Among the inviting problems might be mentioned, then, verification of the belief that the Ohio culture extended far into Michigan; investigation of the extent of the prehistoric Iroquois invasion and of the question of their responsibility for many of the earthworks or

enclosures that are or were distributed from 75 miles south of the Straits of Mackinac to the head of Lake Erie.

A reconnoissance made last year by members of the Museum staff located definitely a large number of prehistoric sites that well deserve investigation. These sites consist of mounds and tumuli thickly scattered throughout the northwestern part of the Lower Peninsula. It also located a number of enclosures or so-called "forts" that had not previously been either visited or studied by any persons taking an interest in the subject. Over 560 mounds have been charted. Of course, this includes places where mounds are known to have once existed but have been destroyed. Not to include the 23 garden beds, 80 enclosures have been located. In Missaukee County, which contains some very characteristic enclosures that are still standing, a number of embankments running in almost straight lines for several hundred feet were located. On the shores of one of the lakes in Alpena County Mr. Gillman unearthed about 1870, a number of perforated skulls, one of which has been mentioned previously, clearly indicating that the operation was performed while the person was still living. That locality deserves careful and systematic investigation, which would, no doubt, yield other similar specimens.

Probably the Saginaw valley, owing largely to the activities of Mr. Harlan I. Smith, has been more thoroughly investigated than any other part of the state. The charts indicate almost a continuous line of earthworks of one kind or another, cemeteries, village sites etc., along the Saginaw River and all its tributaries. As already intimated, there is probably a distinctive culture area in the Grand River drainage. While some of the best reports that have been made on Michigan archaeology are descriptions of these works, the ground deserves to be gone over thoroughly and no doubt the results will be gratifying. The southwestern part of the state, including the drainage of the St. Joseph and Kalamazoo Rivers, is also closely dotted with evidences of a long and populous occupancy.

During the past year a State Archaeological Society has been organized, the members now comprising about 100. The Society has a considerable volume of potential energy and it is to be hoped that the organization, in co-operation with the Archaeological Division of the University Museum, may accomplish satisfactory results. One of the first things to be brought about in the state is the prevention of the destruction of the works that are still extant. Michigan is overrun every summer by tens of thousands of tourists. Many of

these people carry away and scatter, to no purpose, various interesting specimens. They also dig into the old cemeteries, and it is quite unusual to find a mound that has not already been rifled. There appears to be an awakening interest, far too long delayed, to do something in the interests of education and science that will not only collect data and material, but preserve, as many other states have done, many of the conspicuous specimens still remaining. *E. F. Greenman.*

DR. LOUIS R. SULLIVAN

In the April-June issue of the current volume of the *ANTHROPOLOGIST*, Dr. Hooton pays just tribute to Dr. Sullivan's personal qualities and scientific ability. He gives the American Museum credit for giving Dr. Sullivan every help in his struggle for health.

In the concluding paragraph he expresses a "certain resentment and indignation that such a brilliant scientist should have been forced to fight not only ill-health but also poverty during the productive years of his youth. Perhaps this premature death might have been prevented, had this young man received a living wage at the outset of his career."

Dr. Hooton then proceeds with some general and true observations concerning the pay of scientific men in museums and universities.

While, on close examination, with one exception, the specific statements made by Dr. Hooton are true, the first reading seems to imply that the American Museum had been especially niggardly in the compensation paid Dr. Sullivan.

Dr. Hooton's grouping of ill health and poverty in the same sentence is unfortunate, for by the time Dr. Sullivan's health showed signs of failing, he was receiving a salary that allowed him all the necessities of life and the Museum began to "give him every help in his struggle for health," as Dr. Hooton said earlier in his article.

Except for the first two years, when Dr. Sullivan was spending most of his time in intensive study at Columbia University and the College of Physicians and Surgeons his remuneration was probably about the average of that paid instructors in universities and research workers in Museums. He received two considerable increases in salary after his ill health made his presence at the Museum impossible.

Being aware of these facts, but not in a position making me responsible for them, I have considered it my duty to set them forth.

P. E. GODDARD



## ANTHROPOLOGY AT THE WASHINGTON MEETING AND PROCEEDINGS OF THE AMERICAN ANTHROPOLOGICAL ASSOCIATION

The American Anthropological Association held its twenty-fourth annual meeting in Kirtland Hall, Yale University, New Haven, Connecticut, on December 28, 29, and 30, 1925, in conjunction with the American Folk-Lore Society.

Two meetings of the Council were held with President Hrdlicka in the chair.

### COUNCIL MEETING, DEC. 28, 9:15 A.M.

The following reports were read and accepted:

#### REPORT OF THE SECRETARY

The proceedings of the last annual meeting of the Association were published in the *AMERICAN ANTHROPOLOGIST* for January-March, 1925. There has been no special meeting of the Association nor of the Council during the year.

On January 15th there was received by the Secretary, an invitation for the Association to become a member of the Social Science Research Council. This invitation was laid before the members of the Executive Committee by mail, and was duly accepted. The Association was then requested to appoint three delegates to the annual meeting of the Social Science Research Council to be held in Chicago in April. In the absence of the President, the Secretary designated three delegates *pro tem*: Doctors Clark Wissler, Fay-Cooper Cole and W. D. Wallis. Dr. Wissler and Dr. Cole attended the meeting and reports from them will be presented to the Council. The Social Science Research Council had been informed that the above appointments were *pro tem* and subject to confirmation by the Association; our delegates, accordingly, were accredited by the Social Science Research Council only for the year ending April 1st, 1926. It is therefore necessary for the Association to name three delegates to serve from that date, one for the year 1926-1927, one for the years 1926-1928 and one for the years 1926-1929. In future one delegate will be chosen each year for a three-year term.

The Anthropological membership in the National Research Council is now as follows:

To serve until July 1, 1926; M. H. Saville, F. G. Speck, J. R.

Swanton; until July 1, 1927; A. Hrdlicka, A. V. Kidder, R. J. Terry; until July, 1, 1928; N.M. Judd, H. J. Spinden, G. G. MacCurdy.

The Association has lost by death during the year nine members: Mr. John L. Baer; Prince Roland Bonaparte; Dr. W. C. Farabee, ex-president of the Association; Prof. E. S. Morse, Mr. P. G. Gates, a life member; Mr. John Murdock; Mr. G. H. Pepper, a member of the Council; Mr. Alanson Skinner, a member of the Council; and Dr. L. R. Sullivan, a member of the Council. Fourteen members have resigned, nine have died, thirteen have been dropped and eighty-one new members have been added, making a net gain of forty-five.

The membership at present is as follows:

Honorary members .....	3
Life members.....	13
Regular members .....	653
	<u>669</u>

Respectfully submitted,  
A. V. KIDDER, *Secretary*

#### REPORT OF THE TREASURER

##### *Receipts*

Balance on hand Dec. 17, 1924.....		\$3175.54
American Ethnological Society.....	\$ 794.00	
Anthropological Society of Washington....	325.00	
Annual membership dues:		
1923.....	\$ 24.00	
1924.....	119.00	
1925.....	2337.37	
1926.....	244.30	
1927.....	6.00	2730.67
Sale of publications . . . . .	386.26	
Reimbursements . . . . .	307.17	
Interest.....	59.43	4602.53
		<u>\$7778.07</u>

##### *Disbursements*

Geo. Banta Publishing Co:

Printing etc. ....	\$4003.20	
Postage .....	50.50	
Storage Aug. 1924-Oct. 1925.	150.00	\$4203.70

Editor's expenses.....	580.00		
Secretary's & Treasurer's expenses.....	90.34		
Repayment of loan to Permanent fund....	1100.00		
Miscellaneous.....	70.21		\$6044.25
			<hr/>
Cash on hand Dec. 17, 1925.....			1733.82
			<hr/>
			\$7787.07
<i>Resources</i>			
Cash on hand Dec. 17, 1925.....			\$1733.82
Due from sales:			
1924.....	11.10		
1925.....	13.00	24.10	
Due from dues:			
1923.....	36.00		
1924.....	48.00		
1925.....	216.00	300.00	324.10
	<hr/>	<hr/>	<hr/>
			2057.92
<i>Liabilities</i>			
Membership dues for 1926 and 1927 already paid	219.90		
Storage on back stock (December).....	10.00		
	<hr/>		
Total liabilities.....			\$ 329.90
Net excess resources over liabilities.....			1728.02
			<hr/>
			\$2057.92
<i>Cost of Publications</i>			
<i>American Anthropologist</i> , vol. 26, no. 3			
Printing.....	\$ 452.80		
Reimbursement.....	4.60		\$ 448.20
	<hr/>		
<i>American Anthropologist</i> , vol. 26, no. 4			
Printing.....			507.06
<i>American Anthropoligost</i> , vol. 27, no. 1			
Printing.....			806.89
<i>American Anthropologist</i> , vol. 27, no. 2			
Printing.....	\$ 707.06		
Reimbursement.....	6.50		500.56

<i>American Anthropologist</i> , vol. 27, no. 3	
Printing.....	566.74
<i>American Anthropologist</i> , vol. 27, no. 4	
Printing.....	475.54
Memoir, no. 31	
Printing.....	\$ 296.07
Reimbursement.....	296.07
Net cost.....	\$3304.99
Reprints and distribution.....	441.54
Total cost.....	\$3746.53

## PERMANENT FUND

*Receipts*

Balance Dec. 20, 1924.....	\$1581.56
Interest, April, 1925.....	\$ 8.49
Interest, October, 1925.....	8 51
Interest on temporary Savings Account.....	29.58
Profit on sale of War Savings Stamps.....	3.94
	\$1632.08

*Investments*

Liberty Bonds.....	\$ 388.12	
Treasury Saving, Certificates ..	60.00	\$ 448.12
Cash awaiting investment.....		1183.96
		1632.08

The Association closes the year with all bills paid and about \$1700.00 on hand. At the end of 1924 the net excess of resources over liabilities was \$2591.10, but as \$1100.00 was still owed by the General Fund to the Permanent Fund, the actual working excess of resources in 1924 was \$1491.10. The above debt has now been paid, so that the Association is at present really better off than it was in December, 1924 by nearly \$200.00.

The undersigned regrets that it has become necessary for him to relinquish the treasurership. His service in that capacity has been made most agreeable by the friendly assistance and hearty cooperation of the officers and members of the Association.

Respectfully submitted,  
A. V. KIDDER,  
*Treasurer.*

The accounts of the treasurer, A. V. Kidder, have been examined and found correct.

(Signed) E. W. GIFFORD,  
R. H. LOWIE,  
A. L. KROEBER,  
*Auditing Committee.*

#### REPORT OF THE EDITOR

The Editor is able to report progress in the matter of bringing the AMERICAN ANTHROPOLOGIST back to its former schedule. At the time of writing (December 7) the October-December issue for 1925 has just been distributed, and while certain rearrangements in the printing office of the George Banta Publishing Company have delayed the proofs of the first issue for 1926 the management has given reasonable assurance that no undue delay is to be feared henceforth.

In addition to the ANTHROPOLOGIST copy, two memoirs, one by Dr. Elsie Clews Parsons, the other by Mrs. E. S. Goldfrank are in the hands of the printer.

The condition deplored in the last annual Report (AMERICAN ANTHROPOLOGIST, 1925, p. 179), viz. paucity of available contributions, has been happily remedied, indeed, we have had to contend with an embarrassment of riches. A serious difficulty has resulted from the presentation of several worthwhile articles that transcend the normal length. So long as each issue is limited to about 125 pages, a single article of more than, say, forty pages must be run in installments, as it is undesirable to eliminate the Reviews and Notes section. The Editor was disinclined to resort to this method of publication but under the conditions obtaining no alternative suggested itself. In one case there is to be an extra large issue, the author having agreed to pay for the additional expense. The Editor has no fixed policy in the matter of dealing with long articles but would greatly appreciate the advice of the Publications Committee, the Executive Committee, and the membership of the Association generally. There can be no question in his mind that the ultimate solution must lie either in the publication of Memoirs at more or less regular intervals or in a considerable increase in the number of pages published in the ANTHROPOLOGIST. In either case a corresponding increase in the membership of the Association would be an indispensable prerequisite.

So far as contents are concerned, the Editor would like to impress upon the members the obvious but rarely recognized fact that the

ANTHROPOLOGIST is *their* organ and that its success is dependent on *their* co-operation, eked out secondarily by that of other well-wishers. A successful and scientifically valuable journal may be issued as the mouthpiece of certain theoretical views, as demonstrated by *Anthropos*, but the Anthropological Association has never conceived its organ in this way. Hence the active participation of the Editors has been, and will continue to be, confined to occasional articles and reviews. A determined effort has been made to enlist the cooperation of competent foreign anthropologists. Thus, during the current year there have been published the first authentic account of Hottentot social organization by Mrs. A. W. Hoernlé, Professor W. Borgoras's "Ideas of Space and Time in the Conception of Primitive Religion," as well as reviews by Professor A. R. Radcliffe-Brown, Mr. E. E. V. Collocott, and Mr. A. M. Hocart.

The Editor is in complete agreement with the President of the Association as to the desirability of excluding articles that are solely devoted to physical anthropology, since a special Journal for such contributions is being published in this country. This policy does not, of course, extend to reviews.

The question of linguistic articles is less clear, since language may legitimately be regarded as a department of culture, even though a highly specialized one. Moreover, the facilities for ready publication elsewhere are less ample than in the case of physical anthropology and the conclusions of a linguistic article may be of utmost significance from the point of view of ethnographic connections. On this and other points the Editor will welcome constructive and above all, specific criticism.

In conclusion, the Editor wishes to thank Associate Editors F. G. Speck and E. W. Gifford, as well as his assistant Miss A. H. Gayton, for their constant aid and to express his gratitude to all individuals and institutions that have favored him with advice and memoranda.

Respectfully submitted,

ROBERT H. LOWIE,  
*Editor.*

It was moved and passed:

That a report upon the organization and aims of the Social Science Research Council, as presented by Dr. Fay Cooper-Cole, be printed in the AMERICAN ANTHROPOLOGIST;

That the President appoint a delegate from the Association to the

meeting of the Japanese National Research Council to be held in Tokio during the coming autumn;

That the Association's representatives on the National Research Council and Social Science Research Council confer as fully as possible upon anthropological projects that may come before the above bodies;

That the President appoint a committee of three to consider the relations between the Association and the National Research Council (there were appointed Drs. Boas, Hough, and Hooton);

That the Treasurer be empowered to supply the ANTHROPOLOGIST to individuals and institutions in countries with depreciated currency at a rate which will approximate the cost of the ANTHROPOLOGIST before such depreciation took place.

The following committees were appointed:

*On nominations:* A. M. Tozzer, H. N. Wardle, G. G. MacCurdy.

*On resolutions:* E. K. Putman, R. B. Dixon, N. M. Judd.

*On audits:* E. W. Gifford, R. H. Lowie, A. L. Kroeber.

COUNCIL MEETING, DEC. 29, 9:15 A.M.

The following new members were elected: L. Outhwaite, H. J. Biddle, D. J. Morton, C. G. Alton, R. M. Bond, E. M. Sclaes, J. E. Teeple.

It was moved and passed that:

The present committees on Finance, Publication and Program be continued;

That the Association place itself on record in support of the doctrine of Evolution, and that a committee be appointed to draft a resolution embodying the stand of the Association (the Chair appointed Drs. Boas, Cooper-Cole and Lowie members of the committee;

That the next annual meeting be held at Philadelphia in conjunction with Section H, American Association for the Advancement of Science.

That the Treasurer be authorized to expend \$300.00, or as much thereof as shall be necessary, for clerical assistance in the performance of his duties.

That the sum of \$300.00, or as much thereof as shall at the discretion of the Editor be necessary, be expended for the illustration of articles in the ANTHROPOLOGIST.

ANNUAL MEETING, DEC. 29, 1:45 P.M.

The following list of officers for 1926 was presented by the Nominating Committee, was accepted by the Association, and the individuals were declared elected by a vote cast by the Secretary.

*President:* Ales Hrdlicka.

*Vice-President (1929):* Elsie Clews Parsons.

*Secretary:* A. V. Kidder.

*Treasurer:* E. W. Gifford.

*Editor:* R. H. Lowie.

*Associate Editors:* E. W. Gifford, F. G. Speck.

*Executive Committee:* Neil M. Judd, P. E. Goddard, E. A. Hooton.

*Council (1929):* R. T. Aitken, C. M. Barbeau, R. B. Bean, S. B. Collins, B. Cummings, S. Hagar, G. G. Heye, E. A. Hooton, B. T. B. Hyde, A. B. Lewis, S. K. Lothrop, S. G. Morley, J. E. Pearce, F. G. Speck, L. Spier, H. J. Spinden, F. Starr, W. D. Wallis, H. N. Wardle, H. H. Wilder, H. Shapiro, H. W. Krieger, O. Ricketson, G. A. Dorsey, D. J. Morton.

*Representatives from the Association to the National Research Council to serve for three years from July 1, 1926:* N. C. Nelson, R. H. Lowie.

*Representatives from the Association to the Social Science Research Council to serve for one, two and three years respectively from April, 1926:* 1926-27, F. Cooper-Cole; 1926-28, J. R. Swanton; 1926-29, R. B. Dixon.

*Delegates of the Association to Section H. of the A.A.A.S.:* E. Sapir, A. K. Hallowell.

The Secretary was instructed to convey to the authorities of the Peabody Museum of Yale University and to Dr. and Mrs. MacCurdy the sincere thanks of the Association.

The following resolutions were passed by a rising vote:

*Resolved:*—That in the death of Dr. W. C. Farrabee, anthropology in America has sustained a serious loss. Dr. Farrabee had in his field research both in North and South America added notably to our knowledge of the living and prehistoric peoples of the Western Hemisphere. He added to his field work long activity as a teacher and curator. Much of his work in later years was carried on under the physical handicap of poor health resulting directly from the hardships endured in achieving these results which his fellow anthropologists recognize as a distinct contribution to knowledge.

*Resolved:*—That in the untimely death of Dr. L. R. Sullivan the American Anthropological Association sincerely regrets a serious loss to science. Dr. Sullivan though still a young man, had done a large amount of valuable work in physical anthropology and made valuable contributions covering a wide range. His death deprives science of a brilliant investigator of whom much was to be expected.



*Resolved:*—That in the tragic death of Mr. Alanson Skinner in the course of active field work, anthropology has lost the services of an indefatigable worker. Mr. Skinner had, although a young man, already made for himself an enviable position. His field work covered both archaeology and ethnology and in both fields he had made important and varied additions to our knowledge.

*Resolved:*—The death of Professor E. S. Morse has taken from the American Anthropological Association a member of many years' standing, almost the last survivor of the older school of scientists. While primarily a student of geology and Japanese art, he was the first to investigate the shell heaps of Japan, and always retained an interest in anthropology. As curator of the Peabody Museum in Salem he built up a remarkable collection, and through his writing and personal influence did much to develop the Museum idea, not only in this country but in others as well.

*Resolved:*—Through the passing of Geog. H. Pepper, the American Anthropological Association has lost one of its first members. Mr. Pepper graduated from the classroom to active field work in the southwestern United States. His early archaeological preference was broadened during the years to an interest in anthropology generally, which bore its greatest fruit in the museum laboratory.

*Resolved:*—That the American Anthropological Association cordially endorses the development of State Archaeological Surveys, when directed and carried on by properly qualified students of prehistoric culture. In the absence of any such State survey in Pennsylvania we heartily endorse the project of the Wyoming Historical and Geological Society of Wilkesbarre for a systematic field investigation in the tribal history and culture of Eastern Pennsylvania.

On Monday evening, Dec. 28 at the Lampson Lyceum, Dr. Hrdlicka delivered an illustrated address: "An Anthropological Survey in India, Ceylon, Java, Australia and South Africa."

At the general sessions the following papers were presented (those marked with an asterisk were read by title):

Melville J. Herskovits, *Age changes in skin color of American Negroes.*

Charlotte D. Gower, *Factors influencing the formation of the lower border of the pyriform aperture.*

Herbert V. Williams, *Notes on prehistoric syphilis.*

Carl E. Guthe, *The Anthropological field in the Philippines.*

Bruno Oettking, *Variations in the occiput.*

George Grant MacCurdy, *American School of Prehistoric Research, Report of Director.*

Ruth O. Sawtell, *The Azylian burials at Montardit (Ariege), France.*

Edna Thuner, *Is there a place for prehistory in secondary schools?*

Dudley J. Morton, *Man's erect posture, was it acquired or inherited?*

\*Stansbury Hagar, *The four scorpions of the Borgian Codex.*

P. E. Goddard, *When did man reach America?*

E. W. Gifford, *Physical types of aboriginal California.*

Walter Hough, *The development of culture in relation to population.*

George W. Briggs, *Some tales of the Gorakhnathis.*

John M. Cooper, *The Obidjuan band of the Tetes de Boule.*

Edward Lindsay, *The spread of parole in the United States as an example of diffusion.*

Frans Olbrechts, *Mythology and folk-medicine.*

Gladys A. Reichard, *The Navajo clan and clan-group.*

D. Jenness, *Social organization among some Athapaskan tribes in Northern British Columbia.*

Nathaniel Cantor, *Primitive property in New Guinea.*

Agnes C. L. Donohugh, *Notes on the Luba of Southeast Congo.*

Roland B. Dixon, *Hokan and Mechano-Polynesian.*

A. L. Kroeber, *Problems of the archaeology of Peru.*

G. E. Davis, *Hidden symbols of past races.*

\*J. Harley Stamp, *Tchucktchi tatoo designs.*

Warren K. Moorehead, *Exploration of the Etowah mounds.*

C. Hart Merriam, *Tribes of northeastern California.*

Neil M. Judd, *The development and decline of Pueblo Bonito.*

Kirk Bryan, *A geologic study of the alluvial deposits in Chaco Canyon.*

Karl Ruppert, *Pueblo del Arroyo, Chaco Canyon, N. M.*

Frank H. H. Roberts, Jr., *The pottery sequence of Chaco Canyon.*

Ruth L. Bunzell, *Factors determining Zuni decorative style.*

A. Irving Hallowell, *Bear ceremonialism among the Algonkian people.*

H. Newell Wardle, *A rare knife from Montana.*

\*J. E. Pearce, *Some Texas stone artifacts.*

\*Marshall H. Saville, *Mosaic decorated stone masks in ancient Mexico.*

E. W. Gifford, *Composition of political units in aboriginal culture.*

Herbert J. Spinden, *The Venus calendar of the Mayas.*

Fay-Cooper Cole, *Family and clan in Central Sumatra.*

Carroll G. Alton, *Shantok, an historic Mohegan village site.*

ALFRED V. KIDDER,  
Secretary.

## ANTHROPOLOGICAL NOTES

### AN EXPEDITION TO DUTCH NEW GUINEA

On November 21 an expedition to Dutch New Guinea under the leadership of M. W. Stirling left San Francisco for Batavia, Java. At this port a boat will be chartered taking the party to the south coast of New Guinea, where a base camp will be established from which an ethnographic survey of the interior will be made.

The expedition is incorporating a number of new features which will comprise an interesting experiment in anthropological research in the tropics. A high-powered aeroplane especially constructed for this work will be used for reconnaissance purposes and for transportation to the interior. The plane is equipped for photographic work and has a refrigerating plant installed for the developing and safe keeping of films. Radio sets will be installed at the base and interior camps and also in the plane in order that communication may be maintained at all times with the several divisions of the party.

Expeditions in the past that have attempted to penetrate the interior of Western New Guinea have for the most part failed because of the difficulties encountered in penetrating the dense jungles in the low lying coastal belt. An expedition of this sort requires a very large number of carriers with a corresponding amount of supplies. The result has always been that a heavy proportion of casualties has ensued.

It is known from the explorations of Dr. Lorentz that a number of good sized lakes exist in the interior of the island. It is planned to utilize these lakes as landing places for the plane. From the temporary camps established at these points secondary flights will be made into the surrounding region. North of the Charles Louis mountains there is an extensive area of elevated land that has never been penetrated. Because of the altitude it is probable that a biologic life zone exists here which should contain a great deal of interest to the explorer.

One of the primary objectives of the expedition is the pygmy tribe which was discovered by the expedition sent out by the British Ornithological Society in 1910 on the upper Kapare River. This group of Negritos is practically unknown and a study of their ethnology will be a valuable contribution to science. It is the purpose

of the expedition to make a complete ethnological collection from all of the regions visited to be deposited in the United States National Museum.

The territory to be visited is probably the least known of any inhabited portion of the globe today. The many physical difficulties which have retarded exploration in the past will be largely overcome by the use of the aeroplane and it is hoped that much information new to science will result from this novel experiment in using up-to-date mechanical transportation in studying a stone age culture.

AN IMPORTANT WORK announced for 1926 and 1927 is the publication of writings by Fray Bernardino de Sahagun translated faithfully from the original Aztec by the late Edward Seler. The work will appear in two volumes of about two hundred and forty pages each, to be published in the above years. The editors are W. Lehmann, Caecilie Seler-Sachs, F. Boas, P. Rivet and P. W. Schmidt. The subscription price is 40 M. per volume until publication, thereafter, 50 M. The subscriptions may be obtained from Strecker and Schröder Publishers, Berlin, or from the "Emergency Society for German and Austrian Science and Art," care Prof. F. Boas, Columbia University, New York City.

DR. EDWARD SAPIR, director of the Victoria Museum, Ottawa, has been appointed associate professor of anthropology at the University of Chicago.

THE BERNICE P. BISHOP MUSEUM announces that the unusually large edition of the Fornander Collection of Hawaiian Legends and Folk-lore, Bishop Museum Memoirs, Vols. LV, V, and VI, permits them to dispose of about one hundred copies gratis. The charge covering the cost of mailing the three volumes is \$2.54. Those interested should communicate with the director, Robert E. Gregory, Bernice P. Bishop Museum, Honolulu, Hawaii.

WE REGRET TO NOTE the death of Eric Boman, chief of the archaeological department of the Museo Nacional de Historia in Buenos Aires, which occurred in that city on November 29, 1924. Boman was born in Falun, Sweden, on June 5, 1867, but from 1889 until the time of his decease a large portion of his life was spent in South America. He participated in Baron Erland Nordenskiöld's

expedition to northern Argentina and Bolivia (1901-1902) and in Marquis G. de Créqui-Montfort's expedition (1903). His *opus magnum* was published under the title of *Antiquités de la région andine de la République Argentine et du désert d'Atacama*. For obituary notice by Baron Nordenskiöld, see *Ymer*, 1925, p. 232 f.

#### THE AUSTRALIAN COMMONWEALTH SCHOOL OF ANTHROPOLOGY<sup>1</sup>

AFTER nearly two years' effort, the Australian National Research Council has succeeded in its project for establishing a Commonwealth School of Anthropology, to be attached to the University of Sydney. In December 1923 the Commonwealth government expressed approval of a scheme submitted to it; in the following year, however, an officer selected by the British government to advise Australia in the matter of administration of territories, reported very strongly against the proposal to use such a school for the training of officials. In consequence, government interest flagged. Renewed efforts, supported by the Australian Association for the Advancement of Science and the universities, were made in September, and, largely as the result of a visit from Professor Elliot Smith, who brought unofficial word of warm American sympathy, the prime minister promised to provide £1,000 per annum towards the expenses of a chair. The estimated yearly requirement being £2,500, the respective states were then asked to contribute the balance of £1,500 between them on a population basis. New South Wales, Victoria, Queensland and Tasmania agreed to provide their shares, and South Australia is practically certain to fall into line; Western Australia remains uncertain. The Research Council, therefore, has now asked the senate of the University of Sydney to consider the immediate appointment of a professor and the general arrangements for the new school. In doing so, it has laid emphasis on the following points: (a) The main work of the chair both in teaching and research should be in the field of social anthropology rather than on the physical or anatomical side, though provision should be made for this also. (b) In view of the training of students for government service in Papua and the Mandated Territories, and for specialized work in the Pacific, the professor chosen should have had actual field experience. (c) Though the routine work of the new chair will be under the control of the University of Sydney, it is urged that a permanent advisory committee,

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<sup>1</sup> From *Nature*.

containing representatives of the commonwealth, states and research council, should be appointed, to assist in the organization of field research.

SR. LUCIANO M. BUSTIOS of Bolivia has compiled a special centenary album of native Indian music, including a very interesting collection of Indian dances, which have been adapted for the piano without detracting from their characteristic qualities. The album has been illustrated by Sr. David Crespo Gastelú with drawings of the Aymará Indians in their native costumes. *The Pan American Union*.

WE NOTE WITH REGRET the death of Dr. Rudolf Martin, professor of anthropology at the University of Munich. Professor Martin, who had been ill for some time, passed away on July 11, 1925, at the age of sixty-one. He was generally recognized as one of the leading physical anthropologists of the world. His monumental monograph "Die Inlandstämme der Malayischen Halbinsel" (1905) and his standard "Lehrbuch der Anthropologie" (1914) are his most important works; and in 1924 he founded the *Anthropologischer Anzeiger*, a journal reviewing literature in the field of physical anthropology.

ARCHAEOLOGICAL INVESTIGATIONS.—Dr. Max Uhle has been engaged by the Minister of Public Instruction for the professorship of American and Prehistoric Ecuadorean Archeology in the University of Quito. Doctor Uhle will also make archeological investigations and excavations in the territory of the Republic, any antiquities found by him becoming the property of the University Museum. *Pan American Union*.

A NEW PUBLICATION. With the assistance of such able men as Breuil (Paris), Joyce (London), Karsten (Helsingfors), Lehmann (Berlin), Nordenskiöld (Göteborg), Obermaier (Madrid), and Rivet (Paris), Herbert Kühn is editing a new biannual publication—*Ipek: Jahrbuch für Prähistorische und Ethnographische Kunst*.

The first number appeared during 1925, and contained among other articles of value and interest the following: Henri Breuil, *Oiseaux peints à l'époque néolithique sur des roches de la Province de Cadiz*; Hugo Obermaier, *Die bronzzeitlichen Felsgravierungen von Nordwestspanien (Galicien)*; Erland Nordenskiöld, *Die positiven*

*Veränderungen indianischer Kultur in postkolumbischer Zeit*; Theodore W. Danzel, *Psychologie der altmexikanischen Kunst*. Eighty-three plates and two hundred and eighty-six text figures illustrated the first number. Beginning with the year 1926 two numbers will appear yearly.

The publication is obtainable from Klinkhardt and Biermann, Publishers, Berlin, at the price of 42 M. (clothbound).

#### INDIAN SOCIETY WILL ERECT MUSEUM IN OKLAHOMA

The Society of American Indians is sponsoring a project for a museum at Okmulgee, Oklahoma, to be devoted to Indian artifacts now in possession of Indian families where they are treasured as heirlooms. Appreciation is growing among the Indians that such material is historically too important to be kept in private hands.

The museum will be erected in a park of one hundred and sixty acres which has already been acquired for Indian use. The plans of the leaders of the movement, according to *Harlow's Weekly*, call for an expenditure of \$500,000. It is expected that park and museum will be dedicated upon the occasion of the annual convention of the Society of American Indians next May.

MR. D. S. DAVIDSON, a graduate student in the Department of Anthropology, University of Pennsylvania, has made two trips to the little known Tête de Boule Indians of the St. Maurice River, Quebec, to investigate their social structure and map out family distribution along the lines pursued in Dr. Speck's surveys of the northern Algonkian. Mr. Davidson also obtained a representative collection of ethnological specimens from the Tête de Boule which has been acquired by the Museum of the American Indian (Heye Foundation).

DR. FRANK G. SPECK of the University of Pennsylvania has been promoted to a Professorship in Anthropology.

CHIEF DESKAHEH, a prominent figure in Canadian Indian affairs and leader of the conservative Iroquois, died on the Tuscarora reservation near Lewiston, New York, on June 27, 1925, at the age of fifty-three. He was a member of the Young Bear clan of the Cayuga tribe in which he held the office of Sachem. He was buried at Ohsweken on the Grand River Reserve, Ontario.

The struggle of the Six Nations against political annihilation has been a long and strenuous one. Deskaheh played an able and active part in it and represented the Six Nations at the League of Nations and was instrumental in securing recognition of the independence of the Iroquois body. Since his death, brought about by over-devotion to the cause both here and abroad, considerable interest has been aroused among sympathizers in America, France, and Switzerland.

ADOLPH H. SCHULTZ, research associate in the department of embryology, Carnegie Institute of Washington, has been appointed associate professor of physical anthropology in the Johns Hopkins University. *Science*.

THE PEABODY MUSEUM has recently acquired, through its curator, Mr. L. W. Jenkins, a remarkable collection of over one hundred specimens of old Hawaiian ethnology. Among the more unusual objects are a number of pieces of decorated tapa, several execution clubs, spears, baskets, and two shark's tooth ceremonial knives believed to be unique. The collection was sent from Hawaii about 1840 and came originally from a missionary.

EXCAVATIONS at the old Roman fort Y Gaer near Brecon, Wales, being conducted by Dr. R. E. Mortimer Wheeler, director of the Welsh National Museum, have resulted in some interesting finds. A stone building outside the fort walls is constructed with a well-built conduit two and one half feet deep and at least fifty feet long. Within it were found an urn, a glass bottle and bronze coin, while on its cover slabs were nine silver coins of early second century date.

A letter dated January 4, 1926, from Mathew W. Stirling, leader of the airplane expedition to the Tapiro of New Guinea, reports much interest and cooperation on the part of the high officials in Batavia, Java. By the time this note appears in print the expedition will, no doubt, have reached its objective.

Dr. E. M. Loeb has also reached Java and is preparing for his trip to the Mentawai Islands.





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## CULTURE STRATIFICATIONS IN PERU

By A. L. KROEBER

THE following pages discuss the relations of certain pre-Hispanic Peruvian cultures as disclosed by explorations carried on in 1925, under the Captain Marshall Field Archaeological Expedition to Peru, for the Field Museum of Natural History of Chicago, by authorization of the government of Peru under the supervision of its representative, Dr. J. C. Tello of the Universidad Mayor de San Marcos and the new national Museo de Arqueología Peruana in Lima. The full data will be presented in a publication of the Field Museum, by permission of whose Trustees the present preliminary account is issued.

### I. LIMA

Two types of ancient culture are readily distinguishable in the valley of Lima and the adjacent valley of the Chillón which merges with that of Lima into a continuous cultivable plain in their lowest parts. One of the two cultures may be termed Sub-Chancay.<sup>1</sup> Its pottery is an unspecialized, rather poor variety of the ware well known as Black-on-white or Chancay. This Chancay ware is a well localized coast form, found in greatest profusion and purity at Chancay and at Huacho in the lower Huaura valley, the next north of Chancay. It is not represented in a large collection from Supe in the Pativilca valley.<sup>2</sup> To the north, therefore, the range of this ware is less than that of the Department of Lima. To the south, Chancay ware is found in considerable abundance

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<sup>1</sup> This term is used to mean "near-Chancay" or "incomplete Chancay," not "pre-Chancay."

<sup>2</sup> At the University of California.

at Ancon. It appears to be later than the other types of pottery occurring in this famous necropolis.<sup>3</sup> Next come the Chillon (or Carabaillo) and Rimac (Lima) rivers, in whose lower valleys there are found some pieces of Chancay ceramics and a greater number of the less well defined but obviously related sub-Chancay type. The next valley south, that of Lurín, is without pure Chancay pottery, as shown by the extensive collections obtained at Pachacamac by Bandelier, Uhle, and others. Inland, too, the Chancay ware has not penetrated beyond the area generally counted as part of the Coast,<sup>4</sup> except possibly for sporadic trade pieces. The type is, therefore, limited to adjacent portions of the two coastal provinces of Chancay and Lima in the Department of Lima.

True Chancay ware is distinguished by being unpolished, with a red paste, generally completely slipped with white, on which are painted geometric patterns in black lines. The patterns include vertical, diagonal, and crossed lines, straight, zigzag, or wavy, often paneled; the pattern in right and left panel is not infrequently unlike. Small conventionalized figures of animals, especially monkeys, are sometimes painted and sometimes modeled below the neck of vessels. Jars are round-bottomed, rather elongate, often somewhat flattened into an oval cross-section; the typical mouth is convexly flaring, like a tea cup, or doubly so. Handles spring vertically from the mouth or are attached rather low on the belly.

The Sub-Chancay ware is cruder. Cooking-pots with vertical or horizontal handles predominate. Jars are smaller, less constricted at the neck, and less accentuated in form than in pure Chancay. The majority of vessels have been left red, or are only partly slipped with white; black design on the white is still more uncommon; when it does occur, it may be accompanied by red in the pattern, giving a simple and rudely applied geometric design in red, white, and black, somewhat suggestive of the baser types of the Epigonal of Uhle, or of his Red-white-black style.

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<sup>3</sup> M. Uhle, *Muschelhügel von Ancon*, Intern. Congr. Americanists, xviii, London, 1912, 22-45, 1913; W. D. Strong, *The Uhle Pottery Collections from Ancon*, Univ. Calif. Publ. Am. Arch. Ethn., xxi, 135-190, 1925.

<sup>4</sup> P. E. Villar Córdova, *Las Ruinas de la Provincia de Canta, Inca*, i, 1-23, 1923.

There is little figure modeling, the commonest being a wavy line in relief, perhaps a snake, suggestive of Chimú blackware influences; but the monkey does occur. Also reminiscent of Chimú is an occasional horizontal band of raised stippling, with or without zigzag lines. Pots often have only a band of white around the lip or neck. Occasionally the white, which may be roughly smeared on, appears on the red body of a pot or jar in crosses, circles, panels, or other crude design. This sort of ornament recalls the white on red ware found in one cemetery at Chancay,<sup>5</sup> though the bowl shapes prevalent there are not characteristic of Sub-Chancay.

Sub-Chancay, with a small proportion of pure Chancay pieces in the richer graves, was found in the cemeteries of Armatambo near Chorillos, at the southern edge of Lima valley; of the elongated pyramids of Aramburú in the same valley, midway between the capital and Callao; and of a site on hacienda Márquez north of the mouth of the Chillón. It occurs also at Chuquitanta and Infantas, some kilometers up the Chillón, and at various of the ruins in Lima valley, such as those at Lince or Paradero Riso, and in the ancient town of Huática near Aramburú. The mummies with this ware are of the type familiar from Ancon: the largest ones stuffed out into rectangular bales with false head; others also stuffed but bundle shaped; some only wrapped. All are seated, except a certain proportion of small children's burials, mostly those nearer the surface, and an occasional very poor interment of an adult quite near the surface of the ground. These latter suggest burials in the early Hispanic period. At least part of the children's mummies that at first seem extended, prove on examination not to have been put into the ground flat, the legs being flexed or drawn up. Evidently the weight of the soil on the slight, unstuffed mummy caused it to recline. As for babies, the contents being invariably collapsed, a flattened position now is almost inevitable, however they may have been buried. It is thus clear

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<sup>5</sup> M. Uhle, *Ueber die Frühkulturen in der Umgebung von Lima*, Intern. Congr. Americanists, xvi, Wien., 1908, 347-370, 1910, fig. 3; A. L. Kroeber, *The Uhle Pottery Collections from Chancay*, Univ. Calif. Publ. Amer. Arch. Ethn., in press. Uhle considers this white on red ware early.

that the usual Peruvian squatting position was typical of Sub-Chancay interments.

Thread wound crosses were not very frequent in the Sub-Chancay cemeteries explored; painted grave "tablets" of cloth were not encountered; and at Aramburú pads or bolts of unused, coarse, soft, white cotton cloth were often folded on or wound around the bodies. These, however, are only subsidiary or proportional differences of frequency from the mummies of Ancon.

The black Chimú type ware of the northern coast occurs in the Lima-Chillon valley as it does at Pachacamac and farther south, but not in abundance and apparently always in association with Sub-Chancay. No purely Chimú cemeteries or burials were found or learned of. The smoking and polishing of Sub-Chancay blackware are usually imperfect. Sometimes the ware has been left red, only the form indicating its Chimú affiliation. The most pronounced Chimú forms, such as stirrup-mouths, or well-modeled animals, seem rather rare, especially in the Rimac drainage: the Chillon has yielded some specimens and more well-polished black sherds.

Inca pieces or influences are less common than Chimú. Several fragments in pure Cuzco type were found at Armatambo in disturbed grave soil, apparently associated with the prevalent Sub-Chancay. Aramburú and Márquez yielded nothing definitely Inca, though an occasional Inca influencing was perceptible at the latter cemetery. This is in agreement with the facts that Armatambo is the ruin nearest Pachacamac, where Cuzco ware is fairly abundant, whereas the more northern Rimac-Chillon sites lie nearer to Ancon, whose Inca vessels are mostly in Chimú blackware, and to Chancay, from which neither colored Cuzco Inca nor black Chimú Inca seems to have been reported.

The Sub-Chancay of Lima valley seems less related to any one Pachacamac style than to pure Chancay. There is little representation in it of the Red-white-black ware figured by Uhle as late Pre-Inca<sup>6</sup> or of the Chimú influenced blackware and redware of his

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<sup>6</sup> Uhle, Pachacamac, Philadelphia, 1903: pl. 7, figs. 1-9; pl. 8.

coast style of the Inca period.<sup>7</sup> If his illustrations are selected to show only ornamented pieces, it may be that the inclusion of utilitarian vessels would have brought the Pachacamac average nearer to the Sub-Chancay one. Vessels like Uhle's Figs. 73, 84, 85, 86 (coast Inca) are found at Márquez and Aramburú, but only as a minority among the mass of unornamented or mere white on red pieces. At that, the difference does not seem great between Sub-Chancay on the one hand and on the other the common run of Uhle's "later Pre-Inca" and "Inca period" style of the central Peruvian coast as represented at Pachacamac. Sub-Chancay may prove a convenient general designation for all the apparently late ware of this area that is not too heavily tintured with Cuzco or Chimú nor yet specialized into pure Chancay style.

The second style that occurs by itself in the Lima area is that of a cemetery on hacienda Nievería near the ruined town of Cajamarquilla or Jicamarquilla some thirty kilometers upstream from Lima. Uhle, who seems to have been the first to explore this cemetery, or any remains of similar culture, named the culture Proto-Lima. He also found it at the Huaca Juliana in Miraflores, the huacas of Aramburú already mentioned, and elsewhere. This ware is represented by splendid collections made for the Museo Nacional de Historia by Uhle, an excellent one secured by him while in the service of the University of California, and by various smaller assemblages. The largest number of pieces of the type have been published by d'Harcourt,<sup>8</sup> although his illustrations give an unduly heavy proportion of fanciful and freely modeled vessels. More representative of the normal style, both in large, extremely heavy jars and in thinner vessels of ordinary size, are the pictures of Uhle.<sup>9</sup> Proto-Lima pottery has a buff paste, almost orange in the finer small pieces, brick-red in the thick coarse ones. It is painted in black and white, usually also in a rather dark red,

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<sup>7</sup> *Ibid.*, pl. 13.

<sup>8</sup> R. d'Harcourt, *La Céramique de Cajamarquilla-Nievería*, Journ. Soc. Américanistes de Paris, xiv, 107-118, 1922; R. and M. d'Harcourt, *La Céramique Ancienne du Pérou*, Paris, 1924. Cajamarquilla itself contains late ware, apparently Sub-Chancay; the Proto-Lima cemetery lies a little outside the ruined town.

<sup>9</sup> *Fruhkulturen*, figs. 14, 15, 16, 17a, 18a, (19).

sometimes with the addition of yellow. Four colors never occur in Chancay or Sub-Chancay, three are rare, two typical, white alone not uncommon. The three and four color Proto-Lima ware is therefore ordinarily distinguishable from Sub-Chancay without difficulty even in sherds, especially as Proto-Lima white is painted over the black. The better small vessels have a fine, even paste and are polished. The designs, as pointed out by Uhle, have affiliations both with Epigonal (Tiahuanaco) and Nazca. Rather long cylindrical spouts, rod-like handles, and rounded or pointed feet, occur fairly frequently.

The Aramburú and Juliàna mounds are elongated pyramids stretching north and south and abutted by platforms of various heights, sizes, and widths, which give the ground plan a somewhat irregular contour. The middle mound or huaca at Aramburú and the Huaca Juliana are nearly a hundred feet high and a thousand in length; the adjacent ones at Aramburú somewhat smaller. Middendorf<sup>10</sup> gives a sufficiently correct sketch plan of the Aramburú group, the adjacent city of Huática, and a nearby pyramid which he interprets as the temple of the god Rimac. The three great mounds are Nos. 15, 16, 17 on this plan. Uhle shows an excellent view<sup>11</sup> of the middle mound, No. 16, with the northern one, No. 17, in the background. All these mounds as well as the Huaca Juliana are terraced pyramids, whose rounded hill-like lines are due to crumbling of the surface. All of them (except Aramburú No. 17, which seems to be largely of loose stones) are built of small, semi-cubical, hand-shaped and finger-marked adobe bricks set on edge, to form a sort of gigantic honey-comb, the cells of which are filled with soil, rubbish, and, especially on the summits, with water-worn stones such as make up much of the foundation of the Rimac valley soil. Probably half or more of the volume is bricks, the fill having served to expedite erection. The cutting of the new Avenida del Progreso through the southeastern corner of mound 16 and its southwestern terrace amply reveals the construction, which is confirmed by excavations made at various points by myself and by Sr. Jijón y Caamaño.

<sup>10</sup> Peru, II, 80, 1894.

<sup>11</sup> Frühkulturen, fig. 12.

On and especially in the mounds there occur countless fragments of Proto-Lima pottery. Large thick sherds abound especially at the summits, parts of smaller vessels in the lower terraces; but generally speaking, sherds of all classes of Proto-Lima ware occur in all parts of the mounds. Vertical sections that cut across adobe cells show that this pottery was often thrown in as part of the fill of soil, gravel, stones, maize straw, and other refuse. Whole vessels, however, are wanting. Even the "storeroom for chicha or grain" excavated by Uhle on the top of mound No. 16 yielded only masses of fragments, from which at best some reconstructions of parts of vessels could be made.<sup>12</sup> The inference is almost inescapable that these gigantic pyramids were built by a people of Proto-Lima culture.

The lower terraces of the same pyramids, however, tell another story. Here are cemeteries, largely dug over by treasure and pot hunters, where the Proto-Lima sherds recur through the soil; but among them are typical Sub-Chancay burials with whole vessels. This condition strongly suggests later Sub-Chancay interments in an earlier Proto-Lima erection. Since, however, evidence of this sort can scarcely be absolute, it is gratifying that an actual superposition of the two types was encountered.

Aramburú mound 15 is the southerly and most irregular of its group. Middendorf calls it kidney-shaped. It consists of three principal parts. The southern portion is the highest, is roughly conical, and shows the same adobe cell construction as No. 16. The lower middle and northern hillocks of 15 seem to have been largely covered with cemeteries, and have been deeply gashed and their contents tumbled about by excavators. The southern cone or main pyramid also had a cemetery, in a rather small terrace at its western foot. This terrace, whose uneven surface averages perhaps ten meters above the floor of the plain, had also been dug over. But an undisturbed area a few meters long and wide was found near the northern end of the terrace, not far from its junction with the middle hillock of the huaca; and here two low east and west walls of "torta" or continuous mud construction

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<sup>12</sup> *Ibid.*, fig. 14.



were encountered immediately below the surface; and between them, from a depth of half a meter to more than two and a half, were Sub-Chancay mummies as described above. Some seventy or eighty bodies were taken out, all except some of the shallower children's interments being seated; and perhaps two hundred Sub-Chancay vessels.

Proto-Lima sherds, but only sherds, occurred throughout the soil. From 2.7 to 3.5 m. there were no burials, although occasional Proto-Lima sherds continued.

At 3.5 m. depth there was encountered the upper of two layers of straw, and immediately below this, and continuing to 4.5 m., extended burials of twelve adults and one child, seven of them with a Proto-Lima jar or pot, or occasionally two, at the head. Except for one small bowl, low and unpainted, all the vessels were wide-mouthed jars or unhandled pots, with rolled-out lip. Half were plain; the others had the lip and neck painted with a typical Proto-Lima design zone; all had the characteristic clear orange-buff paste, as compared with the muddy reddish or gray clay body of Sub-Chancay. The occupants of the graves were evidently only middle-class people. Search for the bodies of the wealthy, which might have been accompanied by finer vessels, was rendered impracticable by the cost in time and money of uncovering a larger area as deep as this level. Near the western end of the excavated area a buttressed adobe brick wall 1.5 m. high ran north and south. Under the inner buttress were the heads of two of the mummies. The wall had been built after their burial. The layers of soil above them sloped from the wall eastward, that is, downward toward the higher mass of the terrace and pyramid, and contained many adobe bricks. The fill here had been from the outside wall into the space enclosed between it and the original terrace. In this fill the Sub-Chancay bodies were deposited from above.

At about 5 m. depth the top of a wall of adobes was found, running east and west. This was followed down to a depth of a meter, when caving of the sides of the excavation prevented further progress unless much additional soil were to be removed.

The lowest point reached was probably not much less than 5 m. above the original natural ground level.<sup>13</sup>

All the Proto-Lima bodies were extended, and oriented either north or south, generally the latter. Burial was uniform. A rough bed or litter of from four to ten sticks or canes was tied on three cross-pieces, and on this the mummy was lashed on its back with reed rope, enveloped only in a sheet or two of rather thin whitish cloth. Most of the bodies also wore a cloth breech-clout slung around the waist and between the legs. This article was not observed on the Sub-Chancay mummies. The frame or bed was then laid in the ground, in most cases with face and belly down and the frame on top, but sometimes the reverse. The pot stood by the head or sometimes on the head part of the frame. The bodies were fairly well preserved, especially the skin of the portion that was drained off internally by lying uppermost. Whether the physical type differed from that of the Sub-Chancay people can only be decided after laboratory examination. But not one of the Proto-Lima heads was deformed; whereas the Sub-Chancay heads, while often undeformed, showed occipital flattening, sometimes slight and sometimes pronounced, in probably the majority of cases.

A Proto-Lima interment that was puzzling until completely revealed consisted of three bodies. The principal one lay on its back on a cane frame, head north. To the left of its head was the only modeled vessel found, a man jar with spout and bridge, the human figure holding a head executed in relief on the belly of the vessel; on the sides dark red angles and rows of black dots were painted on the polished orange-red surface. Directly on top of the first body lay another, back and soles upward, complete except for head and arms. By the two pairs of well-preserved feet lay a skull without lower jaw, looking northward; immediately before its face was a femur, a little to the right a tibia and a humerus. The remaining long bones lay about the legs of the two whole

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<sup>13</sup> Sr. Jijón y Caamaño subsequently completed a careful and larger excavation adjoining mine on the south, confirming my results, and carrying the Proto-Lima horizon to deeper and somewhat variant levels.

bodies; but of other bones there were none except some ribs, the sternum, and a few from the feet. Some soft tissue adhered; but a careful anatomical examination would be necessary to reveal whether this third, partial body was dismembered for burial or represents parts of a previous interment that were encountered and reburied as an adjunct to the chief mummy. The second body, however, was undoubtedly decapitated and deprived of its arms before interment, since the skin has held together from neck to soles. There is thus established a case of burial sacrifice with beheading and partial dismemberment of the human victim.

Detailed study will be required before the implements of the earlier Proto-Lima and later Sub-Chancay cultures can be compared. It is already clear that the Proto-Lima spindles were considerably longer and often provided with barrel-form pottery whorls, while the Sub-Chancay spindles, as also at Márquez, rarely had whorls and those small. The thick soft cotton cloth of the upper mummies was wholly lacking in the extended burials below. A rude sort of thread cross with a tangle of soft white cord was several times found with Proto-Lima bodies; one or two of these had chips of blue stone paint at three ends of the canes and suggested a doll or human figure. The Proto-Lima culture may be regarded as relatively archaic but not as primitively simple: it included the use of wool, patterned cloth, and metal.

The priority of the Proto-Lima culture is not advanced as a new discovery. Uhle had long ago so contended.<sup>14</sup> But his evidence was indirect and composite, and his argument therefore necessarily inferential and somewhat involved. It is gratifying that the present case of stratification clinches so thoroughly his conclusions. Even the extended burials which he found in the greater part of the cemetery near Cajamarquilla but to which a certain doubt might have attached as possibly late because of the absence of any burials above them, are now confirmed as typical of the Proto-Lima culture and period. Uhle's opinions as to the stylistic relationships of the Proto-Lima to the Nazca and the Tiahuanaco-Epigonan styles are of course not affected by the stratification.

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<sup>14</sup> *Frühkulturen*, 359, 362, 367.

I see both; but rather more affinity, probably, with "Epigonal" than with Nazca, which Uhle chiefly emphasizes.

Another finding is illuminated by the Aramburú stratification. Through the middle of Miraflores, a suburb of Lima on the way to Chorillos, a quebrada eats its way to the sea through nearly two hundred feet of gravel and rolled rock such as the Rimac has aggraded through the valley. The surf has cut this mass into a steep cliff which extends to near Bellavista not far from Callao. About the mouth of the Miraflores quebrada erosion has been stronger than in most parts of the bluff, so that several side gullies run up to the level of the town above. Between these are irregular tongues of land, which fall off suddenly. The stone and gravel of the tongues is covered by soil from a few centimeters to several meters in thickness; and in two or three places low hillocks of loose sandy soil swell near the edge. At first sight these seem to be sand-dunes; but they contain fragments of pottery, bone, and shell. While they cannot properly be described as shellmounds, they were evidently the abodes of people who lived more or less on sea-food. The fact that the few painted sherds on the surface appeared to be Proto-Lima, led me to excavate in two hillocks. All the patterned fragments dug up were Proto-Lima, though the great majority were plain red or fire-blackened. Bones of numerous individuals were found, but much scattered. In one case incomplete portions of three or four persons lay nested or tangled together, but in such position that the preserved parts of one or two of them, possibly of all, must have been interred as cohering units. Burial of dismembered portions of bodies was therefore indicated, as with the sacrifice burial at Aramburú. Two extended burials were also found, one of them complete except for the feet. The body lay on its back; by its head stood a crude pot similar in type to those at Aramburú, and three minute clay vessels—effigies or toys—such as were also found at Aramburú. There was no cane frame and no cloth wrapping, but the relatively shallow interment in sandy soil on an exposed point of land might account for a rapid decay of such materials.

In spite of the Proto-Lima sherds in this and the other hillock, I hesitated at the time to identify these burials. They might have

dated from the Spanish period and have had only accidental association with the Proto-Lima sherds. It seemed rash to attribute an age of a thousand or more years to these remains in what were little more than sand-dunes looking as if a dozen years might suffice to collect and to dissipate them. Yet in the light of Aramburú, the interpretation of the Miraflores finds as Proto-Lima seems almost forced: position of the bodies, dismemberment, shape of the pot, the juglets, the painting on the sherds, in other words all the specific evidences, agree. Evidently the quite extraordinary climatic conditions of the Peruvian coast now and then permit the preservation for a long time of barely covered remains which elsewhere would soon be destroyed or carried away.

Here again a conclusion of Uhle receives strengthening. At Ancon and Supe the graves of his earliest fishing population lay shallow in sandy soil, unassociated with other remains. His interpretation of these graves as earlier than all other material found in these areas rested essentially on their greater poverty and simplicity: primitiveness in time was inferred from primitiveness of type. This is obviously a somewhat risky proceeding, especially in view of the numerous indications of the coexistence of classes of quite different economic status in most ancient Peruvian cultures. But the Miraflores Proto-Lima preservation makes the Ancon and Supe "primitive" preservations easier to accept. There are even one or two other links: dismemberment of bodies at Supe<sup>15</sup>; and the fact that the Ancon and Supe pottery decoration is by incising, a method quite uncharacteristic of Peru, but occurring in two sherds found by me at Aramburú, though only among the scattered Proto-Lima fragments and not in the layer of Proto-Lima burials.

Significant as these hints may be as to the primitiveness of the fishing populations, they cannot without further evidence be accepted as wholly conclusive. The evidence to be final must be of the nature of collocation, superposition, or frequent and invariable dissociation of cultural types. We have disappointingly little such evidence from Peru. Cases of indubitable stratification

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<sup>15</sup> Uhle, Univ. Cal. Publ. Am. Arch. Ethn., XXI 262-263, 1925.

seem to be limited to four or five: Tiahuanaco and Epigonal below Red-white-black and Inca at Pachacamac<sup>16</sup>; Red-white-black below late or black Chimu at Moche<sup>17</sup>; other styles below Inca at Nazca<sup>18</sup>; Pre-Nazca or Central Archaic below Nazca and that below Tiahuanaco and Inca at Nazca<sup>19</sup>; and a somewhat complex relation at Ancon.<sup>20</sup> At that, every case of stratification yet known in Peru is one of burials; which in the nature of things, since later burials may occasionally be deeper than earlier ones, cannot be positive unless the material is abundant and consistent. Uhle's Moche stratification, for instance, rests on one Chimu grave above two Red-white-black graves, with the surrounding area unexcavated. It is an important datum; but to build too reliably upon it would obviously be unwise. Of the much surer type of refuse stratification, which approximates the geological in dependability, and which has been so accurately used in European prehistory, we do not yet appear to have a single case from Peru.

Much the same applies to the method of inferring relative age from the association of whole objects of one type with broken ones of another. Uhle has several times employed this method, for instance at Moche. Applied to the conditions at Aramburú, it is amply vindicated by the stratification found; but it is well to remember that the method per se can never have the surety of an actual stratification. It is a worth-while provisional means in the absence of stratification, especially if consistently substantiated by abundance of occurrences.

## II. CAÑETE

The Valley of Cañete lies about a hundred miles by road south of Lima. It is one of the larger valleys of the coast, and is irrigated by a river that carries more water than any stream for some distance north and south. The Cañete river appears to be at least

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<sup>16</sup> Uhle, Pachacamac, fig. 3.

<sup>17</sup> Uhle, Die Ruinen von Moche, JSAP, x, 95-117, 1913.

<sup>18</sup> Tello, Los Antiguos Cementerios del Valle de Nasca, 2nd Pan-American Sci. Cong., 1915-16, Section I, 283-291, Washington, 1917.

<sup>19</sup> Tello, Wira-Kocha, Inca, I, 584, 1923.

<sup>20</sup> Uhle, Muschelhügel, and Strong, *op. cit.*

as large as the Rimac and much surpasses the intervening streams in volume.

In its lower middle course the river flows through the district of Lunahuaná, which is generally reckoned a separate valley. Cañete valley is the irregular, broad, and nearly level tract along the lowest course of the stream, mainly on its northern side. There are a number of ruins in this lower area, some of the principal of which have been described and discussed by Middendorf<sup>21</sup> and Larrabure y Unanue.<sup>22</sup>

The port of Cañete is Cerro Azul. Immediately behind this rises a small isolated peak, or rather two, from which the port is named. In the angle between these two hills, close to the sea and stretching to the very beach, is an extensive ruin containing some eight or ten pyramidal masses built mostly of continuous adobe (tapia). The cemeteries are in the disintegrated rock of the surrounding hillsides and have been mostly but not wholly exploited. The smaller peak between the port and the ocean bears on its summit some remains of a structure which was, or passes as, an Inca fortress, and is said to have been largely dismantled when the best stones were removed to Callao at the close of the seventeenth century.<sup>23</sup> The present remains of the fortress are rather insignificant, and, if at all representative, suggest that the original structure was less considerable in size and the quality of its masonry than tradition reports.

A number of graves in the Cerro Azul ruin were opened. Among the artifacts in these, and other objects encountered in trial holes and trenches, I did not find a single object of specific Inca type, that is to say, in the manner of Cuzco. I did, however, secure from excavations previously made in the ruins, three characteristic handles of Cuzco style plates. The culture therefore is mainly either just anterior to the Inca conquest, or represents a carrying on into the period of Inca dominion of the local type of coast culture immediately preceding Inca rule. All the indications

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<sup>21</sup> Peru, II, 126-144, 1894.

<sup>22</sup> *Monografías Histórico-Americanas*, Lima, 1893: p. 299, Ruinas prehistóricas en el Valle de Cañete.

<sup>23</sup> Middendorf, II, 129.

are of such relative lateness. Many features parallel those found in the Sub-Chancay ruins and cemeteries of Lima. I did not encounter any large baled mummies, but their absence may be due to the small number of bodies exhumed and the fact that the larger and richer graves had been previously exploited. The skulls are like those from Lima Sub-Chancay graves: natural or slightly deformed occipitally, probably without intent. Many of them contained in the mouth a small sheet of copper. The textiles are similar.

The pottery may be called Late Chincha. That is, it is a slight variant of the type described by Uhle, and by Strong and myself<sup>24</sup> on the basis of Uhle's collections in Chincha Valley to the south. The painted vessels are three color, usually black and white on red, with shapes similar to those occurring at Chincha, and with designs also at least of the same general type, although the poor quality of the ware and bad preservation conditions have defaced and blurred most of the patterns.

More abundant than colored vessels are black ones. The larger ones are shaped more or less like amphoras. These are nearly all tall and slender with pointed bottoms, a pair of handles, and a flaring neck. Smaller jars either of similar proportions or more squat, sometimes even with a flattish bottom, are usually to be found within the mummies. Some of these are quite minute. Certain of the blackware vessels show traits which might be construed as due to Inca influences. But I am not certain how far such an interpretation would be valid. Uhle recognizes an affinity between Chincha and Inca pottery, but is inclined to derive the Inca style in part from Chincha influences.

The Cañete blackware also has definite analogues at Chincha. The Uhle collection from Chincha contains a preponderance of colored pieces; the present one from Cerro Azul, of black ones. This may be the result of an actual local variation of style or it may be the result of smallness of the series. Uhle's collection from the vicinity of Tambo de Mora in Chincha is larger than mine from Cerro Azul. But in conversation with people who had dug

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<sup>24</sup> Univ. Calif. Publ. Am. Arch. Ethn., xxi, 1-94, 1924.



in Chincha and had seen specimens secured there, blackware was mentioned as if it were the prevailing type as at Cañete. The term Black Chincha might be applied to the Cerro Azul ware if the designation Late Chincha seem not quite exact. At any rate there can be no question of the substantial identity of the wares of the two valleys, or of their general contemporaneity and lateness in the pre-Spanish period. It may be added that the ruins at Cerro Azul and those at Tambo de Mora are quite similar in structure, shape, and relative placing of units within the group.

I made no systematic excavations in other ruins in Cañete, with one exception to be discussed presently, but I examined the more important ones. These gave evidence, in their construction or surface sherds or both, of pertaining to the same Late Chincha culture that prevailed at Cerro Azul. In this group can be placed the ruin of Hervay Bajo at the mouth of the river; of Santa Rosa; of Cancharí or citadel of Chuquimancu<sup>25</sup> at Arona; and the impressive fortress of Hungará on a peak dominating the river and overlooking most of the valley below it; besides several smaller sites, including one or two cemeteries without ruins in the vicinity of Cerro Azul.

The one site at which a considerable non-Late Chincha element was found was at Cerro del Oro, a few kilometers inland from Cerro Azul, near the hacienda Casa Blanca and the town of San Luis. The Cerro del Oro is a somewhat longitudinal hill, more than a mile in extent, several hundred feet high, and almost but not quite detached from a range of low hills that jut out into the valley from the north. Its top forms a small plateau on which stand several prehistoric structures which look insignificant from below and do not attain impressiveness on close examination. The general direction of the hill is not far from north-south. Beginning at the edge of the flat top, the eastern side bears a series of large and almost continuous cemeteries on several descending levels. These have been deeply dug into as if they had once contained paying quantities of precious metal. They are not

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<sup>25</sup> This is Middendorf's name. Larrabure calls it Cancharí, and calls the site at Hungará "Fortaleza de Chuquimancu."

entirely exhausted, but it is difficult to find intact graves in the disturbed condition of the cemeteries. I opened a few graves which proved to be identical in all respects with those of Cerro Azul. The cemetery refuse and skulls on the surface and encountered throughout the disturbed grave soil are prevailingly of the same Late Chíncha character. Minor cemeteries or streaks of burials continue down the eastern slope of the hill almost to the foot, which is close to San Luis, and extend at intervals around to the southern end of the hill.

The northern half of the hill is free from indication of Late Chíncha remains, either structural, skeletal, or ceramic. On the other hand its surface carries many sherds of a quite different character, including fragments of low, flat bowls with more or less vertical walls such as are characteristic of the Middle and Late Ica styles; low pedestal-like circular feet which prove to belong to similar bowls; unpainted ware perforated like a sieve; and various fragments painted in a style obviously influenced by that of Nazca or related to it. Blackware on the other hand is lacking on this northern part of the hill.

Retaining walls of cubical hand-made adobes are visible in several parts of this northern area, and examination shows that a great portion of the surface of this area was originally built up into a series of terraces in and below which were numerous graves. These graves were usually placed in rows next to or between walls, and were roofed either with wooden beams, with adobes, or with both. While many have been opened, it was not difficult to find undisturbed ones. They appear to contain little metal which would have excited cupidity.

Further examination revealed considerable areas on the eastern and southern faces of the hill, and along the western edge of the summit, which were built up into similar terraces of cubical adobes. While none of the constructions attain an impressive height, and they have in general either decayed or been covered with sand or débris, the aggregate amount of building that went into them over the surface of the hill was very great, possibly approaching the effort expended in the rearing of the giant pyramids of Aramburú.

The culture of these terraces can tentatively be designated Sub-Nazca on account of its affinities with the style of Nazca. Like Sub-Chancay, this term applies approximation to a well recognized style, not time precedence to it. In fact the stylistic relation between Nazca and Sub-Nazca is such as to suggest that Nazca was on the whole anterior, perhaps by a considerable interval.

I excavated some twenty-five Sub-Nazca graves on the Cerro del Oro, and subsequently resumed work conjointly with Dr. Tello and the Museo de Arqueología Peruana. This excavation was in immediate charge of Sr. Antonio Hurtado, and resulted in the uncovering of twenty-five or more other tombs, some of them larger and finer than those previously encountered. The material from the two excavations enables a fair reconstruction of the culture for comparative purposes. The cubical, roofed tombs are of generic Nazca type. The adobes are also like those of Nazca in being hand-made, although they differ in lacking the rounded surfaces of most Nazca adobes. Metal is very sparsely represented. Textiles occur in fair abundance, but are badly preserved. Enough fragments remain to indicate that the cloth normally was not of the fine type of the more elaborate Nazca textiles. It is unembroidered; often unpatterned; and usually considerably thinner than Late Chinchá cloth. Calabash vessels of a great variety of shapes, generally undecorated, were abundant, in some graves entirely replacing pottery vessels. Of the latter, the most distinctive forms are the low, vertical-walled bowls already mentioned; somewhat similarly shaped bowls with a low pedestal or foot, which might be called handleless kylixes; and red conical colanders perforated throughout their lower halves. These last usually have a black rim or band but are otherwise unornamented. So far as I know they are a wholly new type. Jars show some approximation to Nazca style jars in shape and in plan of decoration. Favorite motives of pottery decoration are fishes. On the one hand these fish designs point toward Nazca, on the other to Proto-Lima. Some of them also carry suggestions of Middle and Late Ica, and are perhaps anticipations of the style developed in that culture; just as the low bowls present a definite affinity in this direction.

I may add that while these excavations were in progress at Cañete, Dr. Tello was exploring a site in Asia, the next valley to the north, where he encountered numerous sherds with Nazca decoration and hand-made rounded adobes much more similar to those of Nazca than are those of Cañete. This exploration is of particular interest in that it reveals the Nazca culture, or definite radiations of it, to have extended farther north than has previously been known. Proto-Lima indeed contains a Nazca element, as Dr. Uhle has long insisted; but this element is remote and indirect compared with the Nazca influences at Cañete and Asia. Incidentally, the general backwardness of our knowledge of even the elementary data of Peruvian archaeology is revealed by the fact that discoveries of this nature can still be made at relatively accessible localities close to Lima.

As to the time relation of the Sub-Nazca and Late Chincha cultures, there can be no serious doubt. Sub-Nazca must be relatively early on account of its faithful preservation of characteristic Nazca traits, and Late Chincha overlaps with Inca. It is clear that the greater part of the Cerro del Oro was a vast Sub-Nazca cemetery in portions of which Late Chincha people subsequently interred their dead. Any possible doubt is however removed by two stratifications, one found by myself and the other by Sr. Hurtado. Mine consisted of an intact Sub-Nazca tomb containing several characteristic examples of pottery. Above the root was a somewhat disarranged Late Chincha burial. This appeared to have slid with the soil rather than to have been disturbed by plunderers. This upper mass, which lay from .1 to .7 m. deep, contained three blackware jars, a globular spindle whorl, and four nearly natural skulls. The Sub-Nazca tomb below, whose base was 1.3 m. deep, contained a broad, frontally flattened skull of the type regularly associated with Sub-Nazca ware, and adjoined two other Sub-Nazca tombs. These contained similar skulls and several spindle whorls, one of which was cylindrical, a type several times found in Sub-Nazca graves.

Sr. Hurtado's stratification was found in the same southern part of the hill and consisted of a Sub-Nazca tomb, containing a typical "kylix," directly beneath three Late Chincha tombs which

included black amphoras and a white chalky substance characteristic of interments of this period and also found frequently in Late Chincha tombs in Chincha Valley.

The association of Sub-Nazca culture with heavy frontal deformation of the head, and of Late Chincha culture with light occipital deformation, forms part of a wider scheme. Uhle found frontally flattened skulls probably associated with his early or Nazcoid pottery type at Chincha, and definitely so at Ica.<sup>26</sup> Tello's trophy heads from Nazca are similarly deformed.<sup>27</sup> Between Cañete and Nazca I found, at sites from which surface or collected materials were available, the two constant associations: Nazca or Nazcoid with frontal deformation, and non-Nazca or Late with occipital (or absent) deformation. The frontal deformation may be accompanied by lateral, posterior, or superior compression, or combinations thereof, resulting in long, broad, or low heads. These several forms are constant for sites or even for valleys. That is, they reflect local and perhaps temporal variations of custom within the geographical and chronological limits of a larger culture. The trait of frontal deformation is however constant for the culture as a whole. A preliminary review of the Peruvian skeletal material at the University of California confirms the field observations, and extends them, so far as Late cemeteries are concerned, to the coast of Northern Peru. All Late coast crania are only occipitally affected, or undeformed. On the other hand, the early northern and central cultures—Proto-Chimu and Proto-Lima—did not practise the frontal compression of the early southern culture—Nazca. This is in line with the much weaker representation of Nazca stylistic influences in Proto-Lima pottery than in the Sub-Nazca pottery of Cañete; which again would be expectable on the ground of distance.

As to the interior, both undeformed and frontally deformed crania occur in the highlands, as around Cuzco. As their respectively associated pottery styles or cultures seem not to have been

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<sup>26</sup> Univ. Calif. Publ. Am. Arch. Ethn., xxi, pp. 52, 83, 123, 125, 130, pl. 21.

<sup>27</sup> *Op. cit.*, p. 286; also, *El uso de las cabezas humanas artificialmente momificadas*, Lima, 1918, p. 30, pls. 4, 7.

definitely recorded, the two types of head shapings cannot yet be brought into relations with those of the coast. But it is plain that data on this point, which are relatively simple and easy to secure, might well be of considerable import on certain broader problems of Peruvian culture development. For example, if frontally deformed heads proved to occur only in comparatively late cultural remains of the southern Sierra, the indication would be of culture flowing in this part of Peru from the coast to the interior. That is, there would lie some presumption of the coast representing the area of origin of the custom, the interior its marginal survival. And otherwise if the data were other. Reference is made to deformation types as culture traits, not to the inherent racial types of the populations that carried the cultures. The racial types present a separate set of problems not touched upon here.

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## THE BACKGROUND OF THE RELIGIOUS FEELING IN A PRIMITIVE TRIBE

By JAIME DE ANGULO

OUR attention has been recently called again to the theory that monotheism is the basis of the religion of the primitives.

In this connection it may be of interest to note that I have never been able to find the slightest trace of even the vaguest conception of Godhead among the Pit River Indians of north-eastern California. The Pit River tribe, of which the Adzumawi and the Atsuge are two of the local groups, are an extremely primitive people. Indeed, the most salient characteristic of their culture is the absence of nearly everything: no totemism, no social organization, no secret societies, no religious ceremonies of any kind, no priesthood, no real tabus. This is an imposing array of negative traits. On the material side their culture is almost as bare; a bow and arrows, a flint knife and a rabbit-skin blanket, basketry of medium quality, but no pottery; for clothes, in winter, mere pieces of fur wrapped and tied around the body or very coarsely sewn into a semblance of shape, and in summer, none; no weaving; no sense of decoration and no development of any art technique; no agriculture. They lived in winter shut up in enormous communal houses holding as many as ten families, and in summer they roamed around. They were communal hunters, using the system of battues and pits, rather than individual still-hunting. Although they had no agriculture, they developed to a high point what may be termed the "digging-stick culture"; this implies a vast lore and knowledge of edible roots, seeds, and wild vegetables, in what places they grow best and sweetest, at what precise time they are ripe in each particular meadow or hillside, and then of how to half-cook and cure large provisions of them for the winter.

These few remarks will be enough to give the reader the feeling of the life of these people. If anybody is to be called primitive, they are. Indeed, looked at superficially, they must have appeared

to the first white men like a horde of beasts. And were it not for the pejorative implication of such a statement by people as contemptuously ignorant of all the rest of creation as we white men are, I would not at all object to their being called animals. For they are very close to the animal stage, the pre-human, pre-rational stage, in the sense that human may be taken as synonym of the concretion of the superorganic into more and more organized forms of culture. Animals are not imbeciles. There is in the life of wild things in a wild setting a multitude of interactions to which the mind of civilized man is not attuned because it is of necessity oriented to another aspect of mental energy, namely the rational. To understand the psychology of the Pit River people, it is necessary to visualize their extremely intimate contact with the trees, the rocks, the weather and the delicate changes in the atmosphere, with the shape of every natural object, and, of course, with the habits not only of every species of animal but of many individuals. It is almost impossible for a civilized man to form any conception of the degree of intimacy with nature this represents. No civilized man would ever have the patience and energy to loaf in a wild place long enough to catch this subtle rhythm of interactions.

I have said that the Pit River were extremely primitive; I might have said that they still are. For though in the fifty or so years they have been in contact with the whites they have adapted themselves amazingly well to all the material aspects of civilization so that today they dress in overalls, use gasoline engines to saw wood, and ride in Fords, on the spiritual side they have not amalgamated a single one of the white man's values. But, the reader will ask, if they have no religious ceremonies, no priesthood, no ritual of any kind, and not the slightest approach to any conception of Godhead, how can one speak of their having any spiritual or religious values? I grant that it may sound somewhat paradoxical, but I must answer that on the contrary the life of these Indians is nothing but a continuous religious experience. To me, the essential of religion is not a more or less rationalized conceptual system of explanations of reality, but rather the "spirit of wonder," or as Lowie puts it: the recognition of the



awe-inspiring, extraordinary manifestations of reality. The difference between the two attitudes is essential. The one leads ultimately from humble origins in explanatory myths and stories of creation to a scientific discipline. The other is the mystical attitude, sufficient unto itself for those who happen to possess it, but an eternal puzzle and source of annoyance to the others because it stubbornly resists all attempts at rationalization.

Therefore, it is logically impossible for the rational man to understand the religious feeling of the primitives, and this is the probable cause of the failure of orthodox scientific ethnology in this field. To try to derive philosophical concepts and systems from the belief in spirits, the recognition of the self in dreams, errors in causal thinking about the phenomena of reality, or any of the other attempts at deriving the religious spirit from something else than itself, will always appear as utterly futile to anyone with a modicum of that spirit of wonder in himself. Unfortunately the man who does not possess it finds himself of necessity driven to explain in terms of his own thinking a phenomenon which he observes in others but which he does not experience himself, a phenomenon, at that, which is essentially subjective but which he endeavors to apprehend by purely objective means. I think this is not only poor philosophy but poor science.

The spirit of wonder, the *recognition of life as power*, as a mysterious, ubiquitous, concentrated form of non-material energy, of something loose about the world and contained in a more or less condensed degree by every object,—that is the credo of the Pit River Indian. Of course he would not put it in precisely this way. The phraseology is mine, but it is not far from their own. Power, power, power, this is the burden of the song of everyday life among these people. Without power you cannot do anything out of the ordinary. With power you can do anything. This power is the same thing as *luck*. The primitive conception of luck is not at all the same as ours. For us luck is fortuitousness. For them, it is the highest expression of the energy back of life. Hence the sacred character of all forms of gambling in primitive life.

There, in gambling, in the "hand-game," you will find the true expression of religious feeling in form, if you are looking for

religious form. Watch the fervor of the two teams as they sing the rhythmic songs of power for a whole night and you cannot escape the feeling that gambling here is a religious experience. "My son was a fine boy," said Fighting-in-the-Brush to me once, "he was a steady fellow, a good worker, a good gambler!" And again, here is Likely Ike explaining to me the theology of the so-called Shaker religion of the Klamath Indians among whom he has resided for the last thirty years, although himself a Pit River:

"... and then Jesus Himself and his wife, her name was Mary, they went traveling all over the world but their little boy got sick and they had to come back to Lutuam Lake. This here Jesus he was a great doctor, he had lots of power, I guess he was the best gambler in the United States."

I could quote many other such expressions revealing the sacred character of gambling and the mystic nature of luck.

The other form of religious expression most nearly approaching a ritual among these people is in connection with shamanistic experience. Now this is the country of shamans par excellence. There are, at present, about a score of them, which is eight per cent of the tribe. You hear little else talked about except doctors and poisonings. But the most extraordinary part is the freedom with which they speak about it, provided of course that you are an Indian yourself or are being taken for one. We always think of poisoning by magic as a dark, shadowy and secret affair. And probably it is so at a later stage of culture, when the differentiation into white and black magic has already taken place. That later stage is also the stage when *supercherie* and hoodwinking make their appearance. But here the belief is real and sincere, there can be no question of that. What more proof could be demanded than Sunset-Tracks, a shaman with whom I was living, *doctoring his own self*? He is an old blind man and he was knocked out of his buggy by an auto just as he started on a visit to his brother. He suffered many contusions but nevertheless got back into his buggy with the help of his wife, and they drove on to Hantiyu, a place twenty miles away. When he got there he was feeling pretty sick. That night his *poison* Raven came to see him. It must be explained here that by his "poison" a medicine-man means indifferently his power, his medicine, the poison actual or

magical that he "shoots," the animal from which he derives it. It is all the same thing in Pit River psychology, and is expressed by the word "*damagomi*."<sup>1</sup> On the other hand the poison calls the shaman *itu ai*, my father. So his poison Raven came to see him that night and told him that his shadow had been knocked out of him when he fell out of the buggy

"and it stayed there on the ground while I went on to Hantiyu, and I guess I should have died if I stayed there, if Raven had not come to tell me. That's why I came back. Last night Bull Snake he put him back in my breath, he put my shadow back here in my breath. Bull Snake he is my poison too. He is pretty good poison, he is pretty strong fellow. Raven, he is my poison too. He always see everything. He live on top mountain there, on top Wadaqsudzi. Jim Lizard he is my poison too, but he is pretty mean fellow. He lie all the time. I can't trust him. Sometimes I am doctoring and he tell me that man he going to get all right and then make me ashamed because that man die. Sometime he quarrel with my other poison. I hear him talking out there in the bush. Bull Snake he say: "What you think, Raven, you think our father he cure that man? Then Jim Lizard he say: "Aw! let's go, that man going to die anyway, our father can't do nothing with him." Then Bull Frog he shake his finger at him, he say: "I am not asking *you*, I am asking this man here. I am asking Raven." Well, I am going to ask them tonight, if my *interpreter* comes tonight, Jack Steel he is always my interpreter, I have sent him word to come tonight, if he come I am going doctor myself."

"How can you doctor yourself?" I asked, "you can't suck yourself!"

"No, I can't suck myself. Maybe I get my brother Hantiyu Bill to come and do that. He is Indian doctor too. But tonight I just want to find out how long I am going to be sick. Maybe I am going to be sick a month. Maybe I am going to be sick a long time. Maybe I am going to die. My poison he know. My poison he tell me."

The interpreter did come, and we held the "doctoring" that night. The old doctor got so excited when he heard his poisons coming near in answer to our calls that he danced almost into the fire, and yet his leg was so painfully swollen that he could not move it without groaning. He began to get well rapidly after this. The purpose of the interpreter, by the way, is to serve as a sort of link between the shaman and the world, not only the visible but the invisible world. All that the interpreter does is to repeat every-

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<sup>1</sup> This is a verbal infinitive: *samagoma*, I poison; *kamagoma*, you poison; *yamagoma*, he poisons; *damagomi*, to poison; *itu damagomi*, my poison, etc.

thing that the shaman says, but in a set intonation, and with a formalized ending. For instance, he calls in a loud voice to the poisons to assemble: "Come, Snake, Come, Raven, Come, Lizard, Come, my poison!" Then he repeats the questions which the shaman puts to them. And it is also he who repeats their answers, which the shaman hears subjectively and repeats aloud in a more or less emoted and unintelligible fashion. For one thing the shaman speaks very fast then. But usually the interpreter is pretty well acquainted with his idiosyncrasies in garbling. However, he sometimes has to make him repeat. The exact value of the interpreter, in psychological terms, is not quite clear to me. My feeling is that the shaman is in a somewhat dangerous state of autism during the performance, a state into which he is in danger of sinking more and more, were it not for the precaution of anchoring his self in the outer world by means of the interpreter. Most shamans are markedly neurotic.

However, it must not be understood for a moment that their neurotic temperament is evidenced by the fact of their daily contact in terms of such intimacy with their damagomis in the invisible world. For, the very same sort of intimacy marks the relation of any Indian who is not just "a plain common Indian" to his *dinihowi*,<sup>2</sup> his power, his protector, his luck, his medicine, or whatever may be the English word preferred by any individual Indian. Now, the *dinihowi* is absolutely the same thing as the damagomi except that the damagomi is more powerful and is only "for doctors." In other terms, there is somewhere in the woods some individual animal, some one particular deer, or a certain locust, or a certain weasel, some one individual denizen of the wilds with a particularly strong dose of life-power to his credit, and he is the fellow whose acquaintance you must make and whose friendship you must acquire, cultivate, and keep. Go into the woods and find him. Seek him in the lonely places, about the springs. Call to him. Go again. Starve yourself and go again. Call to him. Sing his song. Try this song, try that song. Maybe

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<sup>2</sup> Also a verbal substantive, from the root  $\sqrt{ho}$ , the exact meaning of which is "to be sacred," "to be non-ordinary."

he used to be somebody else's protector, somebody who died, and now he hears that song and he says: "That's my song, that's my brother's song,<sup>3</sup> it is a little bit different but it is almost like it, it must be somebody very much like my brother, I think I had better go and see." So he will come and take a look at you. He won't come very close because he is kind of wild. He has got to get used to you. But some day, perhaps after you have called him a long time and you feel lonely and you cry and you are all tired out and you fall asleep, that's because you feel him coming and you lose your senses, you are just like dead, then he comes and wakes you up. He will push your head and say: He! wake up! you sleep there long enough, go home now. That's all he will say but you know he is your *dinihowi*, he is your power, he is your medicine. Maybe he is good for hunting. Maybe he is good for gambling. You'll soon find out. You will see him again. You must come and call him again. You must not take him near people's houses. He might smell something bad there, some dead thing, some woman's blood, and then he will run away, and you can't catch him again. The more you chase him the wilder he gets. When you lose your power, you soon know it, your luck is gone, no use gambling, no use hunting, you may even lose your life.

I have unintentionally dropped into the manner of speech of my Pit River friends. What I have just said is not a quotation from any one man but a sort of composite picture of what I have heard from many. I do not want to go into the details of *dinihowi* hunting and visitation by *damagomi*. There are some exceedingly interesting psychological problems connected therewith, as well as with the details of shamanistic performances. It will form part of a detailed ethnographic study of this interesting tribe which I hope to be able to publish in the future. But I think I have said enough to give the feeling of the degree of intimacy and of daily intercourse with these animal protectors, these carriers of the life-power, these *damagomi*'s and *dinihowi*'s who by the way are

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<sup>3</sup> The *damagomi* referring to the shaman says "my father," while the *dinihowi* calls the man he favors "my brother."

not the animal in its generic or specific aspect, but just one certain individual of his species or of his genus. In other terms not Coyote, Deer or Weasel, but rather Mr. Weasel So-and-So, Mr. Deer So-and-so. Or, as one man said to me: "It's the same among the animals as among us, some of us have got power and luck, and others are just common Indians; some deer are just common deer, and others are doctors and chiefs among the deer; that's the ones you talk to."

No one animal is more especially sacred than any other. Silver Fox created the world with the help of Coyote. But neither of them is venerated in any way. There is not the least feeling of making these or any other animals into gods. I cannot insist too much upon that. In other places in California one gets the unmistakable feeling that Marumbda and Kuksu, or whatever their names in the local language, at any rate the Creator and his Counterpart are the lineal descendants of Coyote and Grey Fox. Here again I must forbear going into an exceedingly interesting subject of psychological significance.<sup>4</sup> The Pit River creation myth is one of the most interesting in the California series because it contains a most pure creation of *form* by means of intuitive thought. For Silver Fox made the world "by thinking": *haydutsila*. And every Pit River Indian knows two or three versions of it, and is interested in learning new ones, just as he is interested in learning new stories of the Coyote cycle, the Weasel cycle, or any of the million stories of that time, not so very long ago, when animals were men, or men were animals, whichever way you prefer to put it. For the matter of that, there is no real difference between men and animals from the point of view of the Pit River Indian. We must not forget that to him these stories are not historical narratives but literary dramas. They fascinate him because they embody in excellent artistic form the emotional and

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<sup>4</sup> I cannot help giving a hint of the wealth of material that lies here for the student of analytical psychology. The very much respected Marumbda is the linear descendant of the fool Coyote, while the remote Kuksu with his enigmatic bird head is the introverted Grey Fox. Fox was always chiding Coyote for protean restlessness. But Marumbda could never have created the world unless Kuksu had given him the substance out of his armpits. The whole enigmatic tale needs treatment, and by real scientists.

psychological problems of life, all this of course from the Indian point of view. You can always make a Pit River stop whatever he is doing and sit down, by telling a story, even when he knows it by heart. But he does not get any religious emotion out of it. His religious emotion he gets out of his intimate contact with the life-power that permeates the world.

This contact, this religious experience, is intimate, personal, individual. It is never cast into any prescribed form, much less into any ritual. All that development will come at a further stage in the evolution of the superorganic. But this most primitive stage is marked by extreme looseness and fortuitousness. No two men have the same dreams and one of the most commonly heard remarks about a shaman is: "I have never seen him doctor, I don't know how he works."

I hope I have given somewhat the feeling of the background of religious experience among these very primitive men. It is strongly alive even today and it is absolutely the only form of religion they have. Their conception of the mystical life-power is as decentralized and unorganized as their social organization. But neither in their doctorings, in their relations with *damagomi's* or *dinihowi's*, nor in their myths and tales is there anything which can even remotely be called God or a god.

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## THE CATTLE COMPLEX IN EAST AFRICA

BY MELVILLE J. HERSKOVITS

(Continued)

### 3.

In Africa, as in many other portions of the world, compensation given by the bridegroom to the family of the bride before marriage can take place is a common occurrence. It is referred to in many works as "bride-purchase," although numerous writers insist that in Africa, at least, there is no idea of ownership of the wife in the attitude of the husband, the "dowry" being explained variously as a hostage given by him for his good treatment of the woman, or compensation to the bride's father for the loss of her presence and working ability. It is remarked upon in most works on Africa, where, together with the development of an intense legal system, there has developed a complete system of laws governing this practice. The amounts given by the bridegroom, the circumstances under which these may be refunded, or what is done with the bride-price in any number of contingencies, are all well known to the members of the various tribes. The custom of payment seems to be ubiquitous, whether it take the form of a few pots of honey and some bark-cloth, or several strands of cowry-shells, or several camels, or oxen.

It is found in the East African area no less than elsewhere. But the significant part of the custom is this: that almost invariably the bride-price takes its form, in whole or in principal part, as cattle. Except in those tribes too poor to afford cattle save in the most special cases, or where the keeping of cattle is rendered difficult by the tse-tse fly, the dowry usually consists in cattle. Meinhof remarks as to this:

Bei allen viehhutenden Stämmen pflegt man Vieh, besonders Rinder, für die Braut zu geben.<sup>144</sup>

Indeed, one reason why the daughters are valued more than the sons in many parts of this section of Africa is just because they represent to their father the future acquisition of several head of

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<sup>144</sup> Carl Meinhof, *Afrikanische Rechtsgebräuche*, p. 31.



cattle. It has been stated by observers as well as by natives<sup>145</sup> that one of the greatest merits of the dowry is that it assures the parents of the bride good treatment by her husband. If she does not receive such and leaves him in consequence, he not only loses his wife, but often his cattle as well. Again, without the passage of cattle the marriage is not ordinarily considered legal. For example, it is the custom among certain tribes to permit marriage to take place, in the event of the bridegroom being poor, without the actual delivery of the entire number of cattle agreed upon as dowry. But until the payment of the dowry is completed any children who may be born are regarded as belonging to the wife's family instead of the husband's, as is the general custom.<sup>146</sup>

Among the Dinka, the bridegroom pays the father of the bride a "maal" consisting of cattle.<sup>147</sup> He first obtains the father's consent and pays a portion of the dowry. If the girl suits him, and refrains from relations with other men, he pays the remainder, usually a year before he marries her. If she does not conduct herself properly in the meantime, he may demand that the cattle he gave be returned by her father, or he may obtain a "fine maal" from her seducer. The Shilluk have a similar custom,—the father of the woman must be compensated by cattle for the loss of his daughter before marriage can take place.<sup>148</sup> In fact, the attitude of the women among these cattle-keeping peoples is most enlightening. The more cattle paid for a woman, the prouder she is of it, as it enhances her social standing. Schweinfurth tells of a young woman begging a Turkish officer to prevent her father from making her marry a poor young man who was not in a position at the time to pay the necessary number of cattle for her.<sup>149</sup> Among the Beri, where the chiefs own most of the cattle, the majority of the people give their bride-price in sheep. Betrothals take place when the girl is very young, and the man gives his future father-in-law a certain number of sheep each

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<sup>145</sup> See particularly on this point the testimony of natives before the South African commissions of 1883 and 1903-1904.

<sup>146</sup> As, e.g., the custom among the Vandau, as related by Mr. Simango.

<sup>147</sup> Gleichen, *op. cit.*, vol. I, pp. 129ff.

<sup>148</sup> Westermann, *op. cit.*, pp. xxxv and 109ff.

<sup>149</sup> *Op. cit.*, vol. I, p. 95.

year until the total number agreed upon has been reached. When the man can give cattle, they are preferred to sheep.<sup>150</sup> The Beir man selects his woman, and if she wishes to marry him, he takes cattle with him to her father's village, staying there several days until the bargain has been struck. The dowry carries from four to twelve bulls. There is no marriage ceremony, but as a rule an animal is killed and eaten. If there are no children after three or four years, a man may return the woman to her father, demanding his cattle in repayment.<sup>151</sup> When the Turkana young man, who has been working for his father, grows up, he looks about to get married. The dowry, varying greatly, and sometimes going as high as fifty cows, usually averages five to ten animals, and the father of the young man pays this for him. When he gets older and richer and wishes to take more wives, he must pay for them himself. At marriage, a father gives his son a portion of his stock, and he also turns over to him any animals the son may have captured in raids.<sup>152</sup>

Among the A-Kamba, matches are often arranged when a girl is only a child. In such a case, she rarely refuses to go to the man who has paid cattle for her, but chooses instead to leave him later when the opportunity presents itself if there is someone for whom she cares more. In this case, her husband is entitled to a return not only of the cattle paid, but of every present he may have given his parents-in-law. The price of a wife varies from two to five cows and a bull, the father taking as much as he can get, three cows and a bull being the average. In certain cases the bride may be taken without any payment, but the cattle must be forthcoming later. With the Mkamba, wives are the best of investments. Not only do they represent an ability to pay cattle but they are, because of this fact, tokens of wealth, to say nothing of the assistance they give in tilling their husband's lands and bearing him children who will in turn strengthen his family group if they be boys, or bring him further wealth if they be girls.<sup>153</sup>

The young Masai warriors live together in their communal

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<sup>150</sup> Gleichen, *op. cit.*, vol. I, p. 147.

<sup>151</sup> Logan, *loc. cit.*, vol. I, p. 245.

<sup>152</sup> White, *loc. cit.*, p. 219-224.

<sup>153</sup> Dundas, *History of Kitui*, *loc. cit.*, p. 520.

huts, and the young girls live with them. After they have reached an age when they no longer remain warriors, however, they look about for wives and settle down. The man who wishes to marry takes presents of tobacco to his prospective father-in-law; if the girl is still young, he makes similar presents at intervals, and when she is circumcized, gives her father another present of honey. After she has recovered, he goes to her father's kraal, taking with him the dowry which usually consists of three heifers and two bullocks, one of the latter being slaughtered.<sup>154</sup> Then marriage takes place.

If a Masai owns large herds of cattle he is able to marry many wives. Some have two wives, others three, and others four; whilst if rich men wish, they may have as many as ten or twenty.<sup>155</sup>

Here again, we have the passing of cattle as the *sine qua non* of marriage, and the position which comes to the man who has many wives. They feed and milk his cattle, for these are distributed among his wives to be cared for, and, as in the tribes mentioned above, they bring him future revenue. Among the Nandi, the usual bride-price is one cow, one bull, and ten goats. The parents of the young man go to the home of the girl's parents, and, if their overtures are favorably received, they return after smearing themselves with butter to announce good news. The elaborate ceremonial which takes place will be referred to below; it must be noted that the cattle play their part in it, and that without them the marriage cannot take place. The limit to the number of wives is only the riches a man possesses. He may have as many as forty, and such cases have been known to occur,—the advantage to the man is again obvious, as the women and children tend his live-stock and look after his gardens.<sup>156</sup> The Elgeyo man gives jars of wine and two jars of milk (the latter symbolical) to his father-in-law. After a probationary period, the

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<sup>154</sup> Hollis, *The Masai*, p. 302. Merker says that the portion is three cows and one ox, while the mother of the bride gets one male and one female sheep, *op. cit.*, p. 45. It is highly probable that both are correct, and that the difference in their observations merely indicates that the dowry-price is not as fixed as their accounts would indicate.

<sup>155</sup> Hollis, *ibid.*, p. 302ff. Merker, *op. cit.*, p. 44 ff. See also Johnston, *Uganda Protectorate*, vol. II, p. 825.

<sup>156</sup> Hollis, *The Nandi*, pp. 61ff.

marriage is sealed by a final ceremony, the presentation of two female goats to the mother of the bride. At this time the woman has her only opportunity to get property; her husband drives his cattle past her door and "when what she considers a fair marriage portion" has been driven past, she calls, "Enough!" However, at her death, her sons inherit this property, or, if she have no sons, her husband gets it back again.<sup>157</sup> The agricultural Masai give the father of the bride six goats instead of cattle. Among the Turkana, five head of cattle and one hundred sheep are the minimum payment. The pastoral Suk usually give ten cows and twenty sheep, though this may be less for a poor man; both the parents and grandparents of the bride share in this; the poorer agricultural Suk give jars of palm or honey-wine.<sup>158</sup> The young man of the Waniaturu who wishes to get married, and who has found a girl for whom he cares, sends an older friend to the father of the girl. A long conversation ensues, until at last the crucial point is reached in the laconic question "*Ngombe inga?*" "How many cows?". There will be bargaining, and finally a figure is agreed upon: two cows at marriage and two in the course of the ensuing three years. The marriage is finally consummated with ceremonies occurring upon the delivery of these cattle.<sup>159</sup> The uncle of the Mgogo youth, or his father, speaks for him to the father of the girl he wishes to marry, and, after preliminary gifts are passed, the marriage takes place, if everything else is satisfactory, on the payment of the bride-price, the amount varying with the wealth of the fathers of the pair.<sup>160</sup> In Ussukuma the dowry ordinarily amounts to about thirteen head of cattle, though Sultans pay about fifty head, and a corresponding number of goats. If a woman proves unsatisfactory, or refuses to go with her suitor, she is either carried off by force or her father must refund the cattle given for her. The number of wives here, as elsewhere, varies with the richness of the individuals.<sup>161</sup> Dundas

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<sup>157</sup> Beech, Sketch of Elgeyo Law and Custom, Journal African Society vol. xx pp. 201-202.

<sup>158</sup> Beech, the Suk, p. 35.

<sup>160</sup> Claus, loc. cit., p. 47.

<sup>159</sup> von Sick, loc. cit., pp. 36-37.

<sup>161</sup> Kollmann, op. cit., p. 172.

lists the bride-prices and marriage customs among other tribes living in the region southwest of Lake Victoria Nyanza. It will be remembered that less has been published on this region than for the region to the north, hence far more details are lacking. But one gathers from the recorder's discussion of the marriage laws that among those tribes where cattle are found, payments are made in these animals. Certain aspects of the Yao culture are found, however; in Ubenia and Urove the suitor must work for his prospective parents-in-law, as well as give them presents. But among the A-Theraka, the Wapare, the Washamba, the Banjika, the Bakumi, the Bagwe and the Wachagga, cattle constitute essential parts of the dowry.<sup>162</sup>

The high development of Baganda political organization was reflected in their marriage customs. Here, also, there was a bride-price required before marriage. But it varied with the class. The king gave no dowry,—women were brought to him by those wishing favors, and because the relatives of these women realized the prestige and possibility of future favors which went with relationship to one of the king's wives. Wives were also given to the chief in similar fashion, but not to so great an extent. If a chief heard of a girl reported as good-looking and a hard worker, he would inform her guardian that he wished to marry her. She was sent to him, and, if he was pleased with her, he would make her his wife, sending presents to her relatives,—many pots of beer, goats and often a number of cows. Or if he took a fancy to a young girl, he would place her under the care of a responsible woman, until she was old enough to marry. But among the common people, a dowry of cows was out of the question. It will be remembered that ownership of cattle was the prerogative, to a great extent, of the nobility. Therefore, among the common people, only goats, cowry shells, and bark-cloth passed as dowry. It is interesting, however, that among the ceremonies following the actual marriage there occur that of conveying food by the bride to her parents,—returning to

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<sup>162</sup> Dundas, *Native Laws of some Bantu tribes of East Africa*, Jour. Roy. Anth. Inst., vol. LI, pp. 246ff.

them for a visit and seeing her other relatives. This was called "taking the butter."<sup>163</sup>

The king of Unyoro was supplied with wives much as his Uganda colleague but did not marry outside the pastoral clans.<sup>164</sup> Princes married women from pastoral groups in the usual way, that is, by giving the marriage-fee of cattle. Other marriages among the cattle-keeping section were arranged by the man's father. Often these matches were made when both parties were children; a man would go to another and suggest that his son might marry the other's daughter when they grew up. He would give two or more cows to the parents of the girl at that time, and the engagement was regarded as settled. When the time for the marriage arrived, the relatives of the bride decided the amount of the fee, which had to be paid before the man took his bride; this amounted sometimes to as much as ten to twenty head of cattle among wealthier people.

It was always pleasant to a prospective bride to make her husband pay a large sum for her, as it gratified her vanity and was a measure of her husband's desire to have her.<sup>165</sup>

Her parents usually gave her a present of cows, some of them in milk, and these were her own property and ensured her having food. Among the agricultural people, the dowry ranged from ten to forty goats, since these people had no cattle. Otherwise, the customs followed those of the pastoral group.

In Ankole, betrothal very often takes place in infancy. As among the Banyoro, two head of cattle are given to ensure the engagement. The children of the poor are not betrothed in infancy, since their parents cannot spare the cattle, but the boy must wait until he is grown and then must obtain the necessary means to marriage as best he can. When the young man who has been betrothed in infancy is ready to marry, he brings two more animals to his future father-in-law, to confirm the earlier promise made by his father. After this, he is told the number of cows he must give, and he goes about getting them together. When

<sup>163</sup> Roscoe, *The Baganda*, ch. III, Marriage.

<sup>164</sup> Roscoe, *Northern Bantu*, pp. 36ff.

<sup>165</sup> *Ibid*, p. 39.

they have been given, the date for the marriage is set; after the wedding, the girl leaves her father's kraal, and, like the girl of the Banyoro, receives cows from her father as a parting gift. The payment of the cattle is so important that when a man of this tribe is too poor to collect a sufficient number of cows, he seeks the aid of one or more brothers; all combine to pay the marriage fee, the woman becoming the wife of the group.<sup>166</sup> The Bagesu, between the Victoria Nyanza and Lake Rudolph, who live mainly by agriculture and possess few cattle, require as much as six cows besides six to twelve goats as the marriage payment.<sup>167</sup> This works a real hardship on the young man, for such an amount constitutes a large sum, the richer men rarely having herds more than twenty head, and it often takes him eighteen months to two years to accumulate the necessary number of animals, trading, begging, or borrowing if possible. It is only after the delivery of the bride-price that the date for the marriage is set. The dowry among the Basoga is also principally cattle, as among the Nilotic Kavirondo,<sup>168</sup> where cows form the principal wealth, while among the Bateso, another Nilotic tribe, there is the preliminary payment of one or two head of cattle by the boy's father during his infancy, and later payment of cows, goats, beer, and grain.<sup>169</sup> A Bantu Kavirondo gives hoes, goats, and a cow for his wife; if she be the daughter of a chief, he gives more cows. The girl who is not a virgin at her marriage is shamed and is returned to her parents, who must not only give her husband the dowry he paid for her, but also an amount to equal it to show the shame brought on them by their daughter.<sup>170</sup> The Wawanga, of the Elgon District, utilize cows both for the payment of marriage "presents" to the father of the bride, and for further presents which are given to him in the course of the ceremonies.<sup>171</sup>

<sup>166</sup> Roscoe, *Jour. Roy. Anth. Inst.*, vol. xxxvii, pp. 104-105. See also Johnston *Uganda Protectorate*, vol. II, p. 632.

<sup>167</sup> Roscoe, *Northern Bantu*, p. 173.

<sup>168</sup> *Ibid.*, p. 281. See also Johnston, *op. cit.*, vol. II, p. 790.

<sup>169</sup> Roscoe, *ibid.*, pp. 262-263.

<sup>170</sup> Johnston, *Uganda Protectorate*, vol. II, p. 474.

<sup>171</sup> K. R. Dundas, *The Wawanga and other Tribes of the Elgon District*, *British East Africa, Jour. Roy. Anth. Inst.*, vol. XLIII, p. 39.

In the central portion of East Africa the dowry-custom is not so strong as it is farther to the north and to the south, but where cattle are available, they are usually included in the bride-price. Where they are not present, other phenomena manifest themselves, e.g., the unusual custom (unusual, that is, for this area) of compelling the suitor to work in his prospective mother-in-law's garden for a greater or less length of time before, or even after, he is permitted to marry the girl of his choice.<sup>172</sup> In general, however, to the west of Lake Nyassa, marriage by purchase obtains. Betrothal is extremely early, it may take place before the child is born, or a few months after birth, in the case of a female child. This is no hard and fast rule, for many instances of late betrothal occur as a result of a young man's fancy for a girl. The bride-price, however, varies according to circumstances; it may be as little as two dressed skins among the Angoni poorer people, or as high as several cows and a large amount of trade goods if the girl be the daughter of a chief. Among the Awemba the dowry-marriage was resorted to after the first wife had been married; she is referred to as the "ceremonial" wife, and outranks those for whom a mere dowry was given.<sup>173</sup> In the case of the ceremonial wife, presents are given to her parents, but these are more or less incidental to the rites solemnized over her. In the case of the later wives, the dowry does not seem to be in the nature of compensation as in a sale. It is rather regarded among some tribes as a settlement placed with the parents of the girl as trustees for the pair, and among the Wanaimwanga when the dowry-stock calves, the offspring belong to the young husband, if he has behaved himself. It is reported that where cattle have been recently introduced, as among the Wafungwe, Wiwa, and Walam-bia in the northern portion of this section, the innovation has affected the rate of divorce, for cattle and wives are so scarce that they must be obtained at all costs, and a man fears to chance losing both his wife and his cattle, if he brings action.<sup>174</sup>

<sup>172</sup> Stannus, *The Wayao of Nyassaland*, loc. cit., p. 235. It is interesting to note that among the Yao apparently no token of any kind is given at marriage. See also Coxhead, op. cit., pp. 11, 25, 29, 34, 39-41, 48-52, for customs involving both cattle and services in this region.

<sup>173</sup> Gouldsbury and Sheane, op. cit., p. 165. <sup>174</sup> *Ibid.*, p. 171.



In the same district, the Wankonde young man goes to the father of the girl he desires with a present of one or more cows. If the father is a chief ten to twenty cows may be given, but some of the poorer people give hoes, brass waist-rings, and several yards of cloth instead. After this the parents on both sides meet and agree to the match. It is here, too, that the custom of living with the wife's people is reversed, for the groom takes his bride to his own village.<sup>175</sup>

Turning to the southern portion of the East African area, we find that, just as the number of cattle and the extent to which they dominate the lives of the people increases, similarly their significance in the acquisition of a wife assumes greater importance than in the Nyassaland region. Among the Ba-Ila, the dowry is called *chiko*. It is regarded as a compensation to the girl's clan and a return to her parents and guardians for the expense and trouble they have had in raising her, also as a guarantee that she is to receive good treatment at the hands of her husband and, further, is "the seal of a contract by which she is to become the mother of the man's children."<sup>176</sup> It is not at all in the nature of a purchase, and the woman herself takes a lively interest in the amount to be given for her. It is an acknowledgment that the marriage is an honorable one, and it is felt that the husband values his wife more highly if he has given a large dowry for her. The amounts vary. For those who are poor, there may be given such items as the following: one blanket, three goats, one hoe, one basket of salt. Or, again, nine hoes, two blankets, six yards of calico. But, as one rises in the scale of wealth, one finds that amounts such as two oxen and one cow, or four cows and three oxen, or cows, oxen, and an assortment of the articles mentioned above, are given. The exact amount depends on the position of the girl and the wealth of the man or his backers. For a chief's daughter as much as thirty head of cattle may be given. In any event, cattle are included if this be possible, and the ordinary *chiko* is four or five head.<sup>177</sup>

<sup>175</sup> Johnston, *British Central Africa*, p. 415.

<sup>176</sup> Smith and Dale, *op cit.*, vol. II, p. 49.

<sup>177</sup> *Ibid.*, vol. II, p. 50.

The influence of the white people on the customs of the Vandau has turned them in recent years from the cattle-marriage, the dowry now being paid in money among those portions of the population nearest the coast and in most direct contact with the whites. But inland the old custom still exists, as it did in all the district before white influence became strong. The amount given was somewhat less than twenty-five head of cattle for the daughter of a commoner, although much more might be given for the daughter of a chief. It is thought desirable that the family should be strong, and therefore the relatives of a man are glad to assist him with loans in getting together the necessary bride-price. The cattle received for a daughter are the property of the father, but the mother has what might be termed a moral right to direct their disposition, and it is understood that they are to be preferably used for the purpose of supplying the dowry which enables the bride's younger brothers to marry.<sup>178</sup> Among the Thonga, similar conditions prevail. Legal marriage consists in the payment of *lobola*, as the dowry is termed, to the parents of the bride, and without this no marriage is recognized as such. Unless it is paid, any offspring of the pair belong to the family of the girl, since, without this payment, the man has no rights in the persons of his children, as he would have normally. As has been noted so often above, it is the passage of the *lobola*, consisting of cattle, which legalizes the marriage.<sup>179</sup>

The dowry of the Zulu woman was higher than among the Vandau. The man who married the daughter of a commoner had to give at least twenty-five animals, while the woman whose father was a chief or held a prominent place in the community was not to be had for less than fifty head.<sup>180</sup> The Kafir man who wished a wife had to come to terms with the girl's father in similar fashion, and the number of cattle he had to give for her varied with his status and hers. Since it was not easy for the young man to raise enough cattle, it was the custom 'not [to permit the younger

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<sup>178</sup> This information was supplied the writer by Mr. Simango. See also Herskovits *op. cit.*

<sup>179</sup> Junod, *The Life of a South African Tribe*, vol. 1, pp 262-263.

<sup>180</sup> Simango

brothers of a family to marry until their elders had at least one wife each. Often a great man would send one of his daughters to the chief as a wife, and it was considered a great insult if a sufficient number of cattle were not returned as an acknowledgment. When there were rivals for a girl's hand, she chose between them, and often, though not necessarily so, she chose the one who had the largest number of animals to offer for her since the larger a woman's lobola, the greater her prestige. The man who could not pay the full number of cattle would mortgage his first baby against the remainder, and if these were not forthcoming, the wife's people might detain her if they could catch her; if any of the lobola cattle died during the first year of marriage, fresh animals could be demanded in place of those which had died.<sup>181</sup> Casalis remarks of the marriage customs of the Basutos:

. . . le mariage se fait moyennant une valeur payée aux parents de la fille par ceux de jeune homme . . . L'accord se fait publiquement et l'on a soin de s'entourer d'autant de témoins que possible lorsque le douaire est payé.<sup>182</sup>

All through this portion of South Africa, the custom in this respect is so uniform as to make further reference to individual tribes monotonous. The testimony of natives before the South African Native Laws and Customs Commission of 1883, such as Daish, a Gaika,<sup>183</sup> Kaulela and the Fingoes of Peddie,<sup>184</sup> Cetywayo, ex-king of the Zulus,<sup>185</sup> and others, and natives testifying before the Commission of 1903-4, bring out the significance of the cattle-complex in relation to this important occurrence of life with striking clarity.<sup>186</sup>

Cattle do not play an important part only in the arrangements for marriage, however. In such matters as the actual ceremony, divorce, and various occurrences during married life, we see them again holding an important place throughout this East African

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<sup>181</sup> MacLean, op. cit., p. 43; Kidd, *The Essential Kafir*; Leslie, op. cit., pp. 171, 197.

<sup>182</sup> Casalis, op. cit., p. 191ff.

<sup>183</sup> Minutes of Evidence, pp. 79 ff.

<sup>184</sup> *Ibid.*, p. 167.

<sup>185</sup> *Ibid.*, p. 516.

<sup>186</sup> See *ibid.*, pp. 26-29, testimony of Sir T. Shepstone, for further detailed information as to the lobola.

area. An example, found among the Ba-Ila, illustrates the extent to which these people will go to obtain wealth, although this is the only occurrence of this particular custom which has come to the attention of the writer. The Mwila woman, unlike many of her sisters in East Africa, may possess wealth in her own right, and, indeed, may become a chief of an important and prosperous community, a practice which savors of the Congo region. Husband and wife sometimes make an arrangement by which the wife goes out to "hunt wealth,"—in other words, prostitutes herself. She returns to her husband, reports, and he promptly claims a cow as a penalty from the man concerned. Such cattle belong to the husband, but after she has earned several cows for him in this manner, he will give her one for herself. This cow, and its progeny, are hers absolutely, and through them she may become wealthy.<sup>187</sup>

In the marriage ceremony proper, cattle are used among many tribes. Gangelizewe, paramount chief of the Tembu, remarked that there was a custom among his people of giving a newly married woman presents at her marriage, sometimes cattle. Asked as to the disposition of these, he said,

The girl has three head of cattle: one is killed for the marriage feast, and one is for her own use at the kraal to which she goes, and the other is for the hair they tie around a woman's neck. These cattle are given by the father and relations.<sup>188</sup>

Dashe, a Gaika, also remarks on the custom of killing cattle to celebrate the marriage ceremony, in his vivid account of his own marriage.

. . . . Next morning the people gathered together to see the girl. Then they killed the big red and white cow with big horns; they wanted to kill three, but I said no; kill one, because they won't let us dance here, this is Fort Beaufort, and it is not the occasion of the marriage. . . .<sup>189</sup>

The most complete account of Kafir marriage ceremonies available are to be found in the Rev. Mr. Dugmore's papers, and the

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<sup>187</sup> Smith and Dale, *op. cit.*, vol. I, p. 382.

<sup>188</sup> Native Laws and Customs Comm., 1883, Minutes of Evidence, p. 442, q. 7766.

<sup>189</sup> *Ibid.*, p. 81, q. 1182. Just what Dashe meant by the last phrase is rather vague, because immediately above he says, ". . . the marriage party came from the girl's people to my father's kraal."

details given are full of relevant instances. It is the slaughter of an ox which notifies the bridal party that the marriage bargain is satisfactory to the groom's family; presents of cattle are given to the bridegroom by his father-in-law, and to the bride; the feasting on beef continues from three to ten days, and at sunset on the last day, ox-races are run; while the lecturing of the bride on her future duties is preceded by the act on her part of throwing an assagai into the kraal.<sup>190</sup> Among the northern clans of the Thonga, the oxen for lobola are driven before the bridal party. One of these is killed for the feast, another is supplied by the bride's father. One of the important characters during the ceremony is the man who married the sister of the groom, and whose oxen are being used to furnish the lobola on this occasion. The great *mukoñwana*, who is the opposite of this person, i.e., the wife of a man's brother-in-law, has many prohibitions attached to her person as far as he is concerned. For, if the wife should run away and he should demand repayment of the lobola, this woman would have to be given back to her family so that the man's wife's family could get the necessary oxen with which to make the repayment, since his wife's brother's wife has been obtained with his oxen, and there is the resulting relationship of dependency between her family and his. In the ceremony, the division of the oxen is set by custom; a skewer is put through the heart and liver and it is stuck into the ground in front of the bride's father's house, when it is said, "This is the notification of the husband's people," signifying that the ceremony has been completed.<sup>191</sup> There is no mention made of the use of cattle by the southern portions of the Thonga in the marriage ceremonies. However, Mr. Simango claims that among the Thonga, as well as among the Vandau, cattle were used in most ceremonies up to recent times. They are so valuable today, however, that none but the richest individuals can afford to kill them at the proper occasions, such as birth, death, marriage and other ceremonies, and so substitution is made of goats or even chickens, which are, naturally, much less expensive. Westward,

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<sup>190</sup> MacLean's Compendium, p. 43 ff.; see also Leslie, op. cit., pp. 195 ff.

<sup>191</sup> Junod, *Life of a South African Tribe*, vol. I, pp. 202-203.

according to Mr. Simango, among the Zulu, cattle are slaughtered on every appropriate occasion, but since the people along the coast are not so avid meat-eaters as their fellows to the west, there is not much loss felt at the substitution made. Among the Ba-Ila, cattle play little part in the actual marriage ceremony, but the apportionment of the *chiko* is made according to the services of the various individuals who are entitled to parts of it.<sup>192</sup>

Among the more northerly tribes, where the use of cattle for all purposes is so common, they also play important rôles in the marriage ceremony. It has been noted how reluctant these people are to kill their animals for purposes other than the most important. Among the Banyankole, the father of the bride supplies a fat ox for the feast at the marriage, and this meat is roasted and eaten before the participants at the ceremony move to the kraal for the next part. Here, there is a tug of war for the bride, the relatives of both the parties to the match contending for her by means of a rope tied about her ankle. When the final pull has been given in favor of the bridegroom, he slips the rope from her ankle and hurries her away from the immediate scene to where a group of friends are waiting with a cow-hide spread on the ground. The young woman sits on this, and the young men raise her up and rush triumphantly with her to the groom's house, pursued by friends and relatives.<sup>193</sup> The gifts of cattle to the young woman from her parents on this occasion have already been commented upon. The use of the cow's skin in marriage is also found among the Banyoro, where Roscoe notes that the dress of the bride, in conformity with the general usage of married women, includes a veil of well-dressed cow-hide or bark-cloth.<sup>194</sup> Among the Baganda, in the actual ceremony of marriage, the cowry-shell and the bark-cloth play much greater parts than cattle. This, however, is probably because cattle are so generally in the hands of the nobility that the utilization of them for private ceremonials such as these is out of the question for the people generally.

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<sup>192</sup> Smith and Dale, *op. cit.*, vol. II, p. 50.

<sup>193</sup> Roscoe, *Northern Bantu*, p. 120, see also Roscoe, *Jour. Roy. Anth. Inst.*, vol. XXXVII, p. 204.

<sup>194</sup> Roscoe, *Northern Bantu*, p. 38.

In the ceremonies of the Masai,<sup>195</sup> we see how large a part in the actual marriage-rites cattle play. The guests gather at the kraal of the bride's parents in the cool of the morning, and here are brought things to eat and drink, a sheep, a goat, a pot of honey, and a calabash of milk or honey-beer. The children of the bride's family drive an animal from the herds of her father, which is immediately killed and hospitably offered to the guests, while the bridegroom and his bride are decorated with beef-tallow and red earth for the occasion. The *jus primae noctis* was at one time in force. Where it has lapsed the groom denies the right to the men formerly privileged. But he must look sharp, lest they rob him of a beast from his herd on the following day, for if they do so he must suffer his loss without complaint. Sometimes these ceremonies, recounted in detail by Merker, do not occur, and in this instance the bride-price is merely passed, and the woman is taken to the hut of the man. When he has his home already built, the bride must not leave it during the two days following her marriage. He gives her three cows and one bull, and on the third day she drives these out in the field, but does not remain with them. On the three following days she does no work, but on the fourth begins again, with the milking of a plain black cow, black being the Masai symbol for quiet earnestness.<sup>196</sup> This ceremony impresses the woman that she must attend to her duties, and not light-heartedly leave an angry husband to go about indulging in idle gossip.<sup>197</sup> In the Nandi rites, cattle are equally prominent. Each move of the bride is accomplished only when she has been promised a cow; when she enters her husband's house, before she will enter the goat's compartment of her father's house, before she will lay aside her impedimenta at her husband's home she must be promised her cow. Similarly, the next day, the bridegroom will not allow his wife to wait on him or to serve him

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<sup>195</sup> Merker, op. cit., pp. 48-49.

<sup>196</sup> "Nach der Erklärung der Masai ist das einfache Schwarz das Sinnbild für ruhigen Ernst, wogegen bunte Farben Heiterkeit und Leichtlebigkeit bedeuten." p. 49.

<sup>197</sup> "Die Frau soll mit Ernst ihre Pflichten erfüllen und nicht, leichtlebig herumstreifend, diese versäumen und durch müssigen Klatsch dem Mann Aerger bereiten.", *Ibid.*

food until she has promised him one of the cows given her the day before. When the bride leaves her own home, she carries, in part, a stick used for cleaning gourds, a cupping arrow, and a calf's bell, which is suspended from her left shoulder. The goat sacrificed at the bridegroom's kraal has been anointed with milk and cow's urine, by his parents, while the next morning the girl feeds her husband with milk. After a man's first marriage, he must slaughter a bullock and give his friends a feast. He selects an animal with good horns, and, after his friends have beaten him over the face with nettles he may fix the head and horns of the animal over his back door, and settle down to the life of a married man.<sup>198</sup>

In divorce, cattle are fully as important as in marriage. We find again and again, in the statements of those who have studied the East African tribes, notes as to the divorce customs of these people, which are determined by the legalistic bias so typical of African peoples. As was remarked above, the cattle given as dowry by the groom are his guarantee to the parents of the bride that she will not be mistreated by him, and that he will perform his duties as a husband. The general custom is to consider these cattle,—lobola, chiko, maal,—as given for this purpose, and if the wife leave her husband because of ill-treatment, the rule, almost invariably, is that he not only loses his wife but his cattle also. But there are obligations on the part of the wife as well, and we find another custom generally distributed which concerns them. If the wife does not bear children, he can either divorce her and receive his cattle in return, or he may marry a sister of his wife's, giving a reduced dowry for her. If his wife dies before giving birth to any children, the man will usually be given one of her sisters, and if none are available, the cattle he gave as a marriage-price will be returned to him. Indeed, so strong is this feeling that we read of the compulsion to return the same animals which were originally given.

In the testimony of various persons before the South African Native Laws and Customs Commission of 1883, that of Dashe

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<sup>198</sup> Hollis, *The Nandi*, pp. 60-64.



illustrates clearly the importance of cattle in divorce as well as in marriage. His mother, the first, though not the "great" wife of his father, was driven away by her husband. Dowry of five head of cattle had been given for her, and afterwards, when her friends demanded that additional cattle be given for her, her husband forced her to leave him. Shortly after this, Dashe was born, and when asked if his father was given the dowry cattle he had paid, he said, "No; they were not asked for, because I came back in place of them."<sup>199</sup> And since the cattle were not returned, Dashe never went back to his mother, but stayed with his father instead. However, he was asked, "If you had never been brought back would your father have taken the cattle?" and his reply was, "The cattle would have been given up."<sup>200</sup> In the testimony of Kaulela and other Fingoes of Peddie there is to be read further detail as to the relation of cattle to the ownership of children and to divorce. When asked if there were cases of women not getting married, Kaulela replied, "There are. Sometimes a girl is not liked by any of the men. She remains at the kraal, and sometimes gets a child promiscuously. If the father of the child wishes to redeem the child he pays cattle; if not, the child belongs to the brother of the girl."<sup>201</sup> Cetwayo, ex-king of the Zulu, testified as to the character of lobola, and then, being asked as to what happened to the dowry-cattle, replied that the father of the girl kept them; . . . . "if the girl dies without having any children the cattle are returned. If she died after having had a child, the cattle belong to the father."<sup>202</sup> According to Umpengula Mbanda, the chief wife of a Zulu may be removed from her position for adultery or if she does not treat strangers who are guests of her husband with proper hospitality, i.e., if she refuses to feed them or if she scolds them. If she has a son, he remains the heir to the property, and the children of the virgin who is married and put in her place come immediately after him, while the new wife acts as his mother. The ex-chief wife, however, is not returned to her father, appar-

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<sup>199</sup> Minutes of Evidence, p. 79, q. 1140.

<sup>200</sup> *Ibid.*, l. c., q. 1143.

<sup>201</sup> *Ibid.*, p. 169, q. 2877.

<sup>202</sup> *Ibid.*, p. 519, q. 34. See also Leslie, *op. cit.*, p. 197

ently, but takes her place "at the entrance" of the village, below the other wives.<sup>203</sup> Simon Gangelizwe, paramount chief of the Tembu, and others, in their testimony concerning the use of cattle in marriage and divorce, testified as follows:

According to your law, long ago, when a husband and wife quarrelled and the husband was to blame and the girl went back to her father, could he get his cattle back—In olden times the woman had no rights, and therefore the man got his cattle back, because women are naturally wicked and have no good ways with them. . . . They give back the cattle just the same, because the law remains the same.—Do the people not get dissatisfied when you say they are selling their daughters; do they not get offended at the word *tenga*; do they agree to that?—Sensible women would agree to it. In olden times if a woman died, then the cattle would be restored, but the man would go to the kraal and ask for another daughter.—Did he pay for the girl again?—Yes, he paid more cattle.<sup>204</sup> Do you not marry her for cattle because you wish to have something which the man forfeits if he ill-treats your daughter?—The cattle are in some sort a guarantee that the girl will be well-treated. Because if a girl is badly treated and she has had children and returns home, then the cattle do not go back to her husband.<sup>205</sup>

At a man's death, if his wife returns to her people,

The father of the husband gets the cattle back if she has no children; even if she has and they die, the *ikazi* goes back.<sup>206</sup>

Sigidi, a Kafir, explained that by taking lobola, the recipient was bound to protect the rights of the woman for whom it was given; that is, that she might find in him a refuge in case her husband ill-used her.<sup>207</sup>

Further quotations might be adduced at length, but there seems to be general agreement in the testimony of the natives that the points brought out in the excerpts given above are the essential practices with regard to the disposition of cattle and the part they play in the event of divorce.<sup>208</sup>

<sup>203</sup> Callaway, op. cit., vol. 1, pp. 266-267.

<sup>204</sup> South African Native Laws and Customs Comm., l. c., pp. 439, 440, q. 7707 7708, 7709.

<sup>205</sup> *Ibid.*, p. 441, q. 7752.

<sup>206</sup> *Ibid.*, p. 443, q. 7780.

<sup>207</sup> *Ibid.*, p. 468, q. 8208.

<sup>208</sup> In the use of material in this Report, the testimony of governors, resident agents, and missionaries has not been utilized, as it has been felt that the information given by the natives themselves would be of greater value for the purpose in hand.

Rev. Dugmore noticed that cattle, given as lobola, being divided among the woman's male relatives, are held in trust for her and her children, should she become a widow. The recipients place themselves under obligation, in receiving these portions of her dowry-cattle, to assist her when she is in need of help, and her children may also go to them for "something to begin the world with." And since these relatives are pledged to assist her, she can go to any of them in case her husband mistreats her, and to recover her he must make all the necessary amends.<sup>209</sup> Mr. Warner, Tambookie agent, noticed in 1856 the same point noted in the testimony quoted above, that the father of an illegitimate child can only claim it if he pays a fine of cattle to the grandfather. Similarly, when a man's wife is guilty of adultery, her husband collects the fine, and, having done so, he obligates himself to care for the child as though it were his own.<sup>210</sup> Condor states that among the Bechuana, if a wife is sent back by her husband unjustly, she receives the cows paid for her as her portion; if the husband justly sent her away, the cattle are returned to him.<sup>211</sup>

The Thonga position with regard to the importance of cattle in the marriage relation is similarly seen in a consideration of divorce and adultery. With these people, adultery consists only in having relations with a married woman. This, Junod explains, is due to the fact that a married woman has had cattle paid for her, and her seducer has stolen something, and, if he is detected,

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The testimony of the Europeans, however, quite agrees with that of the natives in the main, although it tends to be somewhat influenced by the political or religious desires of those testifying. The same holds true of the Christianized natives, particularly in those cases where they condemn certain practices as "wicked" or use similar terms which, it is believed, are a reflection of European teaching. The testimony of Sir T. Shepstone, p. 32 ff., on the practices regarding the return of lobola may be profitably consulted on the points involved here, while further information is to be had from the testimony before the Commission of 1903-1904.

<sup>209</sup> MacLean, *op. cit.*, pp. 52-53.

<sup>210</sup> *Ibid.*, p. 63. See also Holden, *Past and Future of the Kafir Races*, p. 217 ff. South African Native Races Report, 1901, ch. II, Kidd, *op. cit.*, p. 222.

<sup>211</sup> C. R. Conder, *The Present Condition of the Native Tribes in Bechuanaland*, Jour. Roy. Anth. Inst., vol. XVI, p. 85. The first portion of his statement is to be doubted, as in cases of this sort in this region it is usually the father of the divorced wife who retains the cattle, not the woman herself.

an entire lobola will be demanded from him. This he must pay; the woman, often, is returned to her parents, and the repayment of the marriage cattle is demanded. This demand must be met even if a younger son has to divorce his wife to get back the cattle given for her; these will be paid to the husband of the adulteress.<sup>212</sup> Sometimes, however, a wife runs home because she thinks her husband is not providing well enough for her. Then he must go to her parents:

... He will have to go modestly, humbly to his parents-in-law and ask his wife's return. Then they examine the matter and he perhaps receives a good scolding. . . . It may also be that the situation will grow worse and worse and then it will lead to divorce, viz., the husband will claim his money, and when he gets it back, the marriage is dissolved.<sup>213</sup>

In divorce cases coming before the native tribunals, it is ruled that when a woman has definitely left her husband, her relatives must return the lobola; and when this money is returned, the children belong to the mother.<sup>214</sup> The Ba-Ila regard it as wrong for anyone who has received a portion of the chiko to dispose of these animals or their offspring. They must be returned to the husband if the wife gives him cause for divorce, just as we have seen the practice to be for the tribes mentioned above, who live further to the south. The grounds on which the return of the chiko may be demanded are given as follows: virulent or contagious disease, laziness, neglect to provide husband with food by hoeing or cooking, inability to bear children.<sup>215</sup> Adultery is rarely given as grounds for divorce, but if a woman should be incapacitated through an accident, or die, her people would have to provide the husband with another wife. If divorce takes place because of the dissatisfaction of one of the parties with the other, or if the woman runs away to live with another man, litigation ensues, and the disputes are endless.<sup>216</sup> Among the Vandau, to the east, the custom

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<sup>212</sup> See above, p. 379. See also Junod, *op. cit.*, vol. I, pp. 476-479, appendix iii, for a detailed story of one marriage and divorce. This gives a clear portrait of the situation.

<sup>213</sup> *Ibid.*, vol. I, p. 196.

<sup>214</sup> *Ibid.*, vol. I, p. 413.

<sup>215</sup> Smith and Dale, *op. cit.*, vol. II, p. 51.

<sup>216</sup> See *ibid.*, vol. II, pp. 49-54, for concrete instances of divorce litigation, with statements of the cases.

according to Mr. Simango, is to regard the dowry as something given in payment for the woman's ability to bear children and further the husband's family, although divorce does not necessarily follow on her failure to bear children. However, if a man divorces his wife, he may claim the dowry in return, and, unless she can prove that he mistreated her beyond endurance, the parents must return the cattle, or they must send her back and prevail on the man to keep her, or, in cases of ill-treatment, induce their daughter to bear it. If the husband has not paid the entire dowry his wife is free to leave him on the slightest provocation, and there can be no recourse from her will, while if his death occurs before the total number of cattle have passed, the children do not belong to his family but to that of his wife. If the wife, for whom the full dowry has not been paid, leaves her husband, he not only cannot get her back, but her children go with her instead of remaining with their father.

The Ba-Ila custom of requiring the family of a deceased wife to furnish the husband with a younger sister is also to be noted in the region to the north, where the existence of cattle is scattered. Thus,

when a native loses his wife, he dispatches a messenger with a present to his father-in-law who must, later, send back another daughter to fill the dead wife's place. If the nearest sister is already married, the next unmarried daughter is called out, but if she is too young the father must provide a slave woman to replace her until she grows up and can inherit her sister. . . . Often a poor relation's wife is forced . . . to fill permanently the place of wife to the rich widower.<sup>217</sup>

And this custom leads to many divorces, it is remarked. Where cattle have been introduced among the Wafungwe, Wiwa and Walambia, the introduction of cattle into the dowry has made divorce much more difficult to obtain, since both cattle and wives are scarce and must be retained at all costs.<sup>218</sup> Among the Wa-Yao the custom is that a man has a claim against the woman for all the clothes he has supplied her and that this claim can be collected from her next husband. Neglect of duty, sterility, and habitual

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<sup>217</sup> Gouldsbury and Sheane, *op. cit.*, p. 171.

<sup>218</sup> *Ibid.*

death of children born are the reasons besides incompatibility for divorce among them.<sup>219</sup>

Roscoe, in *The Northern Bantu* unfortunately gives little information concerning the divorce practices of the peoples of the region treated. In the case of the Banyankole, he states that divorce is almost unknown. However, there are a few cases where a man has been known to divorce his wife because she was a prostitute, or because she may have been quarrelsome and abusive. “. . . In each case the woman was sent back to her clan and the marriage money demanded.”<sup>220</sup> However, adultery and rape would seem to be serious offenses in all this region and we have information regarding the penalties for indulging in them. Among the Banyankole, if a man force an unmarried woman and she complain to her parents, the man will be tried and will have to bring a number of cattle to her parents in redress, and marry her. If he should refuse to do this, he forfeits all his cattle and his status of herdsman, a serious punishment, for in such a case a man will often commit suicide.<sup>221</sup> Among the Banyoro, if a man committed adultery with one of the king's wives he was put to death; if the woman was the wife of a commoner, the man might get off with a fine, although the woman might be killed by her husband if he wished. If the woman were unmarried, the man was fined a sheep or more, and when the child was weaned the man took it, but if he married the woman, he might have time to collect the necessary cattle for the marriage fee.<sup>222</sup> The Bakene, a lake-dwelling people in the Lake Kyoga district, demand children as the *sine qua non* of a successful marriage. Barrenness is ample ground for divorce, and should all the efforts of the medicine-men prove unsuccessful

the husband may send his wife back to her parents and they will either give him another wife, if there is a sister to take the place of the former wife, or, failing that, they return the marriage gift.<sup>223</sup>

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<sup>219</sup> Stannus, the Wa-Yao of Nyassaland, loc. cit., p. 237. See also Coxhead, op. cit., for a general account of divorce customs in this region.

<sup>220</sup> p. 114.

<sup>221</sup> *Ibid.*, p. 114.

<sup>222</sup> *Ibid.*, pp. 40-41.

<sup>223</sup> *Ibid.*, p. 151.

Divorce among the Busoga may take place because of adultery,—other causes are not mentioned,—but the man usually pardons his wife for the first two or three indulgences. Persistence, however, after warning, justifies divorce, and she is sent back to her family, the husband demanding the marriage-fee. If she returns to her clan, they will refund the fee, but if she goes to her lover, he has to pay the amount: "This plan of divorce and repayment is the usual and common form of law for settling cases of adultery."<sup>224</sup> The Baganda did not take kindly to divorce, it appears, but adultery was punished by torture, mutilation, or death, particularly if it took place with the wife of a king or chief, although commoners would accept a fine of ten women, ten cows and ten goats, all of which, however, did not have to be paid at once.<sup>225</sup> But ordinarily, once a woman had given her consent to marry she was bound by it, and could only gain release on repayment of everything he had given for her, a difficult thing to do.<sup>226</sup>

Among the A-Kamba, we find a bewildering number of instances in which cattle play their part in divorce or payment for adultery. In the latter case, the child goes to the husband or father of the woman, while the man pays a bull and a goat.<sup>227</sup> The most common forms of legal disputes center upon marriage dowries when a father takes back his daughter, or she runs away from her husband. In this position, the husband may either claim his dowry-cattle in return, together with their increase, and all other presents given to the bride's father, or he can drop this claim and keep the children, retaining his claim on any other children the woman may bear in the future. In the latter event, the woman is not regarded as legally married to the man to whom she may have gone, and if she dies in his village, we are informed that her husband can collect blood money for her, since so long as a woman is not properly bought she is not married, and thus it is that the husband, by refusing to accept payment for her, can prohibit her ever marrying again.<sup>228</sup>

<sup>224</sup> *Ibid.*, p. 232.

<sup>225</sup> Roscoe, *The Baganda*, pp. 261 ff.

<sup>226</sup> *Ibid.*, p. 97.

<sup>227</sup> C. Dundas, *History of Kitui*, loc. cit., p. 516.

<sup>228</sup> *Ibid.*, p. 517.

The case becomes exceedingly complicated if the cattle demanded in return by the man have been distributed to relatives, or if the woman is pregnant when she leaves him, for in either case it entails waiting to see the outcome of the birth or the collecting of the cattle, and it is in this fashion that much of the endless litigation begins.<sup>229</sup> Adultery among the Nilotic Kavirondo is punished by the fine of an ox, which is given to the injured husband. An unfaithful wife who leaves her husband is simply returned to him and no one thinks any the less of her. If she should refuse to return, however, either her father must supply him with a sister as substitute wife, or he must restore the marriage fee.<sup>230</sup> A man of the Bantu Kavirondo has the prescriptive right to all the younger sisters of his wife as they come of age, and he must refuse to take them before they can be married to anyone else. If the wife dies without having borne children, her father must send the widower a sister, or return the marriage price; if a woman is ill-treated, she may return to her father if she can induce him to return her dowry to her husband.<sup>231</sup> Among the Wawanga, the man who rapes a woman pays a bull to her husband or father. This is eaten, but the hump is sent to the king. If the woman becomes pregnant, the man pays a bull to the father of the girl, and the dowry is reduced accordingly if he later wishes to marry her. However, if a woman leaves a man, and refuses to return at the chief's command, the marriage portion must be refunded to the husband, "less the value of what she brought him at marriage." She may take her children with her, but their father has the right to claim them when they are grown. If more than three children have been born of the marriage, no portion of the marriage price may be claimed by the husband, but if his wife be barren, he cannot ask back the marriage price on that account. If the girl should not have been a virgin when he married her, he can demand and receive a bull from his father-in-law.<sup>232</sup>

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<sup>229</sup> *Ibid.*, p. 517. See also Lindblom, *op. cit.*, p. 79 ff.

<sup>230</sup> Roscoe, *Northern Bantu*, p. 279.

<sup>231</sup> Johnston, *Uganda Protectorate*, vol. II, p. 747.

<sup>232</sup> K. R. Dundas, *op. cit.*, *Jour. Roy. Anth. Inst.*, vol. XLIII, pp. 54-55.



Among the pastoral Suk, divorce by the man is without formality. He merely sends the woman away, but there is no statement as to whether he is entitled to return of the dowry. In the event of the woman's running away from her husband, there would seem to be nothing done unless she go to another man. When this occurs, he is liable for the penalty usually inflicted for murder. The Turkana divorce occurs when the man wishes to rid himself of his wife, and the first step in accomplishing this seems to be a demand on her father for a return of the dowry. This given, she is returned to her family. If she is abducted by a lover, he must pay the penalty usually exacted for murder, as among the pastoral Suk. When a woman leaves her husband, she ordinarily takes her children with her. The custom among the En-Jemusi is that the wife may be sent away at the desire of the husband. Anyone who later takes her as his wife, however, can not claim the children, for the husband, in this instance as in so many others, seems to have acquired the right to any offspring she may have, no matter who is the father. If she runs away, her husband demands the return of the six goats he paid for her. If, however, she has borne him one son, this repayment need not be made, and is not requested.<sup>233</sup> The Nandi man may divorce a barren wife if she has relations with other men, otherwise, he cannot claim a return of the marriage portion unless he finds some other man to marry her. If his wife has had a child, he may not divorce her at all,—at the most, they may separate, and in this case the first child goes with the father, the younger with the mother. A woman who has done wrong and suspects detection, goes to the kraal of her father and begs an ox from him, if she wishes to escape punishment. She takes this ox to her husband, as a peace-offering; the extent to which this takes from her any penalty she may expect, we are not informed.<sup>234</sup> Exactly the same custom obtains among the Masai. Although Hollis remarks that "Divorce seems to be unknown among the Masai"<sup>235</sup> we read in the text of his translation:

<sup>233</sup> Beech, *The Suk*, p. 32.

<sup>234</sup> Hollis, *The Nandi*, p. 69.

<sup>235</sup> Hollis, *The Masai*, p. 304, note.

If a woman commits a serious crime, and knows she will be beaten in consequence, she goes to her father's kraal, and is given an ox, which she takes to her husband and begs forgiveness.<sup>236</sup>

Separation, though, is far from being unknown. If the woman leaves her husband (it is more often he lets her remain, unmolested but neglected, in her hut, not visiting her) and goes to another man, she has no right to the children she may have by this man, but they belong to her husband.<sup>237</sup>

In the various tribes dealt with by Dundas,<sup>238</sup> adultery and other sexual offenses are dealt with by compensation, but sometimes offenders are slain. Cattle here, as elsewhere, are prominent in the list of payments. In Usambara the payment amounts to the sum of a dowry, five cows; in Upare and Rombo it is more than the dowry. Although the wife may not complain of adultery on the part of her husband, she may leave him because of it. The following tribes are listed as requiring compensation in cattle: Wapare, Washamba, Wasove, Wadigo, Wachagga, and Wabina, while other tribes are mentioned as requiring compensation in goats, or, in the case of the Sumbwe, in hoes. Among all these people, we are told, the wife's father claims the dowry of one or two of his granddaughters if dowry was not paid when the marriage was consummated, although some of the fathers may take back their daughters. A Wagogo man who returns his wife because he has wearied of her forfeits the bride-price. If she is divorced for repeated drunkenness or adultery, he receives the dowry in return. If she has no children, a sister may be substituted for her, the husband saying to his father-in-law, "I have paid so and so much for your daughter, but up to now I have no progeny, no earnings from her, therefore give me another sister." Although a woman may leave her husband if she be mistreated, the bride-price must be returned by her father.<sup>239</sup> To the north, the Dinka dissolve a marriage if the husband mistreats his wife, the condition being that her father return the "maal" which he received for her, plus its issue; if the father possess no cattle with which to make this payment, he will receive his daughter in his house, and when

<sup>236</sup> *Ibid.*, p. 304.

<sup>237</sup> Merker, *op. cit.*, p. 50.

<sup>238</sup> C. Dundas, *op. cit.*, Jour. Roy. Anth. Inst., vol. LI, pp. 237 ff.

<sup>239</sup> Claus, *loc. cit.*, p. 59.

she remarries, pay over the cattle he receives from her new husband to the one she left. If a man wishes to divorce his wife, he merely returns her to her father; he will receive the issue of the cattle he gave for her, however, only if his reason for divorce is considered a good one.<sup>240</sup> Among the Beirs, a barren woman may be returned to her father and the marriage-price plus any game the husband may have supplied his father-in-law, be demanded in return. Disputes in these matters are referred to the chief. If a woman repeatedly commits adultery, she is returned to her father and restitution of the marriage-portion is demanded; if there are children, the husband keeps them and forfeits a certain proportion of the cattle given. A divorced woman would never be bought a second time, but may remarry without dowry being given for her.<sup>241</sup>

Thus cattle are of prime importance in marriage among the tribes of East Africa. In the actual marriage, it has been seen that the passage of cattle usually marks the legality of the union. This is true in all those portions of this area where cattle are found; in those where the people are too poor to have cattle, or where certain classes of the people do not possess them, goats often take the place of the larger animals. In the south of the area, it has been seen that the passage of cattle is significant in the determination of the social position and rank of the children, and even in certain cases of the chieftainship. That the bride-price, a phenomenon common enough in various regions of the world, should take the form of cattle, is a certain indication of their value to the people of this area, and further justifies centering a classification of their culture about this fact. In all the relations of married life, too, cattle have been seen to play their part. Where there is any question as to whom the children belong, as in separation and divorce, we find that reference is made to the cattle, and, indeed, that it goes so far that sometimes in case of divorce the exact animals given for the wife must be returned. However, cattle figure equally in other circumstances of life.

(To be continued)

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<sup>240</sup> Gleichen, *op. cit.*, vol. 1, p. 128.

<sup>241</sup> Logan, *loc. cit.*, vol. 1, p. 245.

## MIWOK LINEAGES AND THE POLITICAL UNIT IN ABORIGINAL CALIFORNIA

By EDWARD WINSLOW GIFFORD

### THE LINEAGE AS AN AUTONOMOUS POLITICAL UNIT

THE Miwok of the Sierra Nevada region of Central California have, in addition to social organization on a moiety basis,<sup>1</sup> organization upon the basis of the patrilineal joint family,<sup>2</sup> or what I prefer to call the male lineage, which formerly was an independent autonomous political unit. The Miwok term for such a lineage is *nena*. The word *nena* has a two-fold meaning. It means not only a male lineage or patrilineal joint family, but it also means the ancestral home in which the lineage is supposed to have arisen. The lineage name is always a place name. Few Miwok today live at their *nena*, but every Miwok knows his *nena* and can name the ancestral spot from which his patrilineal forefathers hailed. The *nena* is more than the birthplace, in fact today it usually is not the birthplace, yet it is always remembered. The *nena* had as its head a chief who was, so to speak, the patriarch of the lineage. The chieftainship normally descended in the direct male line, from father to eldest son. The lineage was a land-owning group, the limited real estate which was held by it being used in common by all members of the lineage.

Each *nena* is exogamous and belongs to one of the patrilineal exogamous moieties called respectively Land and Water. Were there no patrilineal moieties the *nena* would doubtless be exogamous nevertheless, for it is comprised of such a small group of closely related people that marriage within it is inconceivable. Both lineages and moieties are patrilineal. The fundamental thing about the Miwok lineages is that their members are bound together by genealogical relationship, although today, under the altered

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<sup>1</sup> E. W. Gifford. *Miwok Moieties*, Univ. Calif. Publ. Amer. Arch. Ethn., XII, 139-194, 1916.

<sup>2</sup> W. H. R. Rivers. *Social Organization*, 14-16, 1924 (Alfred A. Knopf, Inc., New York).

conditions of life among Caucasians, the members of the lineages are scattered. The exact relationship that each person bears to every other member of the lineage is usually remembered. Lineage membership, as indicated by the use of the term patrilineal, passes only through the father to the offspring. Children never belong to the lineage of their mother.

An important Miwok ceremony called the *pota* ceremony was a definite lineage, as well as moiety, affair. This ceremony was held out of doors and centered about the use of one to three poles on which there were effigies and a bear hide. These represented certain individuals of one lineage. These objects were treated as enemies by the people of the opposite moiety and defended by the people of the moiety to which the lineage that was giving the affair belonged. Another feature of this lineage ceremony and a prerequisite to it was the capture of one or two examples of the prairie falcon. Usually young birds were taken and their capture involved the carrying out of the ceremony lest supernatural harm befall the people. Once the birds were taken the ceremony must be held. This ceremony apparently has no connection with the Kuksu Cult system of Central California, a system with which the Miwok are familiar. In fact, the *pota* ceremony apparently considerably antedates the introduction among the Miwok of many dances of the Kuksu Cult system. In certain respects the *pota* ceremony has superficial resemblances to the Sun Dance of the Plains tribes.

From all of the information that can be gathered, the lineage was anciently among the Miwok a political group, each lineage dwelling at its ancestral home, with the men of the lineage normally bringing their wives to the hamlet to live and the women of the hamlet normally marrying out of the hamlet. Thus, aside from the marrying-in women, the hamlet at the ancestral home was comprised of the male members of the lineage, their male offspring, and their descendants through males. Thus what is today only a social group was anciently also an autonomous, political unit, maintaining, however, friendly relations with other *nena*, particularly those from which wives were drawn and those whose members attended ceremonial gatherings. Each *nena* held a small tract of land about its hamlet. There was always a spring

or stream within the tract. The bulk of the country, however, was unclaimed by the *nená* and was regarded as "no-man's-land," or more correctly "every-man's-land," upon which people from any *nená* might seek vegetable foods and hunt animals. This rather unusual arrangement in which much of the land was unclaimed is better understood when it is realized that each summer the Miwok moved into the higher mountains, so that practically every Miwok *nená* had occasion to travel and had occasion to collect food and other materials away from its fixed place of habitation. It is quite possible that these periodic movements into the higher mountains on the part of all *nená* shaped the ideas as to land ownership and resulted in only limited holdings which were jealously guarded because of their proximity to the ancestral dwelling, while there was mutual recognition of the international rights of all *nená* to gather vegetable products and hunt animals in the remainder of the country.

Even before the coming of the Americans to Sierra Miwok territory in 1848 there had already been considerable pressure from the Spaniards and Mexicans resulting in the abandonment of certain of the *nená* which lay in the lowest hills close to the San Joaquin valley. This seems to have been the beginning of the process of amalgamation of the *nená* into villages, resulting in the type of settlement represented by the village of Tcakatcino near Jamestown, or the village at Big Creek near Groveland, Tuolumne county, a village which is discussed from the standpoint of moieties in the above cited paper on Miwok moieties. In such villages there were brought together, through Caucasian pressure, people from many *nená*. The same story holds everywhere in Miwok territory. The Caucasian invaders drove the people from their ancestral *nená* sites to take refuge with other Miwok in less disturbed places and thus true village life arose and new territorial ties were created. Yet in spite of one hundred years of Caucasian pressure we find that every person today remembers the putative place of origin of his paternal ancestors. At rare intervals this memory is further refreshed by the performance of the above-mentioned *pota* ceremony.

As we have just seen, Caucasian pressure brought about true village life among the Miwok, in which a number of unrelated lineages, often of different moieties, came to form a new political body, the village community. Although it took Caucasian pressure to bring this about among the Miwok there would seem to be other groups in California which had achieved the village community, comprising several lineages, before the coming of the white man. Before I take up the discussion of such peoples, however, I wish to speak of other groups which appear to have lived like the Miwok in patrilineal joint families or lineages.

In Southern California the Miwok situation seems exactly paralleled by the case of the Desert Cahuilla, a Shoshonean people, who are divided into at least forty-four male lineages which in an earlier paper I have called clans.<sup>3</sup> Each of these Cahuilla lineages seems to have had a single spot which it claimed as its own, a location which always, of course, possessed the requisite supply of fresh water. Most of the names of Cahuilla lineages seem to refer to these ancestral dwelling places, as do the Miwok lineage names. The parallel between Cahuilla and Miwok organization is carried further when it is noted that the Cahuilla are also organized upon a moiety basis just as are the Miwok. As the moieties are patrilineal like the lineages, each lineage is definitely assigned to one moiety or the other. Like the Miwok lineage each Cahuilla lineage had a patriarchal chief who was usually the oldest son of the preceding chief. Like the Miwok lineages, too, each Cahuilla lineage seems anciently to have been an autonomous political unit, although a small one to be sure. Whether the Cahuilla lineages had only small land holdings like the Miwok lineages or divided all the country between them, I do not know.

The same interpretation should evidently be placed upon the organization of the neighboring Serrano,<sup>4</sup> another Shoshonean people of Southern California. The groups which I have called patrilineal clans among the Serrano were obviously similar in character and in political autonomy to the Miwok and Cahuilla

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<sup>3</sup> E. W. Gifford. *Clans and Moieties in Southern California*, Univ. Calif. Publ. Amer. Arch. Ethn., xiv, 190-191, 1918.

<sup>4</sup> E. W. Gifford. *Clans and Moieties of Southern California*, 179.

lineages. The Serrano like the Cahuilla and Miwok have a moiety organization. The similarity between these three groups seems obtrusive, all possessing male lineages, lineage chiefs, ancestral homes, and full political autonomy. All comprised small groups of people, probably in most cases not exceeding fifty, exclusive of married-in females of other lineages.

Turning now to another Southern Californian people, the Southern Diegueño, we find also localized patrilineal groups which I now prefer to call lineages instead of clans as I named them in an earlier paper, or *gentes* as Dr. Spier calls them.<sup>5</sup> The Southern Diegueño lineages seem in every way comparable to the lineages of the Miwok, Cahuilla, and Serrano, except that they are not grouped into moieties. In chieftainship, land ownership, and political autonomy they closely parallel the lineages of the three linguistic groups we have been discussing. Dr. Spier has plotted their territorial holdings. The Northern Diegueño lineages seem less localized and approximate more closely the condition of the Cupeño and Luiseño lineages discussed below, residing together in villages, a condition which may be due to Caucasian interference, however. They are not grouped in moieties.<sup>6</sup>

Unpublished information concerning the Western Mono indicates the male lineage as the autonomous political unit. Again these are grouped in moieties.<sup>7</sup>

The determination of whether or not the lineage and the political unit are coterminous can be achieved only by genealogical investigation. This method has not been applied to many of the Californian groups, so that it is impossible to say just how extensively lineages and autonomous political units coincided. From the small size of the settlements in the mountainous and desert portions of the state it would seem likely that each autonomous hamlet in most cases comprised but a single lineage.

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<sup>5</sup> E. W. Gifford. *Clans and Moieties in Southern California*, 167-172; Leslie Spier, *Southern Diegueño Customs*, Univ. Calif. Publ. Am. Arch. Ethn., xx, 297-311, fig. A, 1923.

<sup>6</sup> E. W. Gifford. *Clans and Moieties in Southern California*, 172-174.

<sup>7</sup> E. W. Gifford. *Dichotomous Social Organization in South Central California*, Univ. Calif. Publ. Amer. Arch. Ethn., xi, 291-296; also *Clans and Moieties in Southern California*, 215-219.



## THE LINEAGE AS AN INTEGRAL PART OF THE BODY POLITIC

Let us pass from the consideration of the lineage as an autonomous political unit to the consideration of it as an integral part of a larger political unit. I have already referred to amalgamation of lineages among the Miwok through Caucasian pressure, but there were doubtless many places in the state, particularly in the more fertile portions where the Indian villages were large, in which the dwelling together of two or more lineages to form a larger body politic had taken place long before the advent of the white man. A good example of such a village composed of distinct paternal lineages is Kupa, one of the two Cupeño villages of San Diego county reported by the Spanish explorers in the eighteenth century. In Kupa there were seven lineages which, although living in a single village and therefore bound by certain territorial ties, nevertheless maintained their distinctness, each lineage having its own land upon which wild products were gathered, each having its patriarchal chief, and each keeping fresh the story of its origin. A similar situation was to be found in the second Cupeño village of Wilakal. The Cupeño lineages<sup>8</sup> were grouped into moieties like the lineages of the Cahuilla and Serrano. The only difference between the Cupeño lineages and those of the two tribes just mentioned was that the Cupeño lineages no longer lived in their reputed ancestral homes, but already at the time of the coming of the Spaniards had taken to living peaceably together in the two villages of Kupa and Wilakal. The factors that brought about this clustering of lineages are not known. Quite possibly the aggression of enemies, coupled with the favorable environment of the present Cupeño territory, were the factors that brought about the living together of these distinct lineages. The following paragraph summarizes my unpublished notes as to the affiliations of the several Cupeño lineages.

The Cupeño lineages were nine in number, seven residing at Kupa village, two at Wilakal village. Six of the nine lineages are of reputed non-Cupeño origin as the following tabulation shows.

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<sup>8</sup> E. W. Gifford. *Clans and Moieties in Southern California*, pages 192-201. In this paper I have used the term clan instead of lineage.

Under the heading "Origin" is given the name of the linguistic group from which the paternal ancestor of each lineage is said to have been derived. The table reveals the interesting point that the putative original Cupeño were all of the coyote moiety, but of three lineages. Before the entry, into the community, of foreign lineages of the wildcat moiety there could therefore have been no moieties among the Cupeño. That moieties thus originated by the settlement of "wildcat people" with the three original Cupeño lineages is, of course, open to doubt like many another native explanation of cultural features. Another point that the table reveals is the dependent position of the village of Wilakal, which having only "wildcat" lineages was thus forced into village exogamy; while Kupa, having a goodly representation of lineages of both moieties, was a self-sufficient political unit which could maintain itself without foreign marriage alliances. Wilakal was no better off than the autonomous single lineages of the Miwok, for its men, like the Miwok men, had to seek their wives elsewhere.

## CUPENO LINEAGES

<i>Name</i>	<i>Synonyms</i>	<i>Moiety</i>	<i>Village</i>	<i>"Origin"</i>	<i>Remarks</i>
Kauval	Nauwilet Changalangalish Nukwa	Coyote	Kupa	Cupeño	
Potamatoligish	Pala'adim Pala'ut	Coyote	Kupa	Cupeño	
Tamakwanis		Coyote	Kupa	Cupeño	Extinct
Saubel		Coyote	Kupa	Cahuilla	
Sivimoat		Wildcat	Kupa	Diegueño	
Aulingawish	Auliot	Wildcat	Kupa	Diegueño	
Takanawish	Taka'at	Wildcat	Kupa	Lui-seño	
Djutnikut		Wildcat	Wilakal	Diegueño	
Tashmukimaatim	Tuchil	Wildcat	Wilakal	Cahuilla	

The Cupeño also illustrate another process of amalgamation of lineages, in addition to the territorial bond created by their living together. I refer to the uniting of certain of the lineages for ceremonial purposes. In case a lineage has become chiefless it is customary for the people of the lineage to affiliate themselves with some more powerful lineage of the same moiety which still has a chief and to perform with this more powerful lineage its ceremonies. These ceremonial groups are called in English

"parties." In Cupeño they are called "nout" which is also a word meaning chief, thus clearly indicating the extent to which the party centers in the chief. This is obviously an extension of the lineage-idea that the lineage focuses in the chief.

Passing to another Southern California Shoshonean group, the Luiseño, we find a series of some eighty lineages recorded.<sup>9</sup> In the paper just cited I hesitatingly call these lineages patrilinear clans or families. I think they may unhesitatingly be set down as lineages similar to those we have been describing. They have, however, a rather different type of designation, which as a rule has no reference, unless veiled, to an ancestral home place. The far greater number of lineages among the Luiseño as compared with the Cupeño is quite in keeping with the much larger territory which the Luiseño occupy. It is possible that we may regard the Luiseño as having gone a step further than the Cupeño in the matter of creating territorial ties which held the lineages together in the respective villages. The non-localization of the lineages among the Luiseño may be evidence of this and, if so, perhaps indicates that the lineages have so long lived together that the original home settlements have been forgotten. As with the Cupeño, the breaking down of lineage barriers, as manifested by the chiefless lineages uniting for ceremonial purposes with those which still possessed chiefs, has taken place. In lacking moieties the Luiseño approximate rather closely to the condition of the Diegueño; but the Diegueño, so far as I know, lacked the so-called parties or combinations of lineages for ceremonial purposes which the Luiseño and Cupeño have.

Upon the basis of the concrete evidence from the Cupeño and Luiseño it seems reasonable to suppose that the villages of the other peoples of the western part of Southern California, such as the Juaneño, Gabrieliño, and Chumash, may likewise have comprised a number of lineages. The possibility of determining this, however, has vanished. In the Chumash villages, which seem to have been exceptionally large as Californian villages go and to have maintained themselves for many centuries, it is not im-

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<sup>9</sup> E. W. Gifford. Clans and Moieties in Southern California, 203-205.

possible that all trace of original localized lineages had disappeared by the time of discovery in 1542. The Luiseño evidence cited above seems to indicate some such condition for that people, and if such is admitted as probable with the Luiseño, it seems far more likely with the Chumash in their exceedingly favorable environment in which communities of probably several hundred persons developed without danger of food shortage.

Concerning the semi-nomadic Yokuts tribes of the San Joaquin valley we have no evidence as to the extent to which originally localized lineages may have been modified and worked into the prevailing political unit, the named tribe of from 250 to 500 people.

The Eastern and Northern Pomo of the northern shores of Clear Lake, Lake county, give us further illustration of the sort of relationship which doubtless existed in considerable degree in California between the lineage and the political unit, the village. Certain of the villages of these peoples are composed of but a single lineage and have but a single chief each, to whom all members of the village, not married-in, are attached by blood ties. Unlike the people I have hitherto discussed, the blood tie among the Pomo which binds the average person to his chief is matrilineal and to a considerable extent the succession to chieftainship is likewise matrilineal.<sup>10</sup> In certain respects the Pomo female lineages are comparable to the Cupeño and Luiseño male lineages. In the smaller Pomo villages, as I have already said, but a single lineage with its chief may be represented. In the larger villages, like Cigom on the northeastern shore of Clear Lake, there may be two or more lineages. In the case of Cigom there were three lineages without names and with no tradition as to a former place of residence. Each lineage, however, had its own chief so that in the village there were three chiefs apparently all equal in power, except insofar as the matter of constituents of each chief varied. Each person born in the village was bound by blood ties, usually matrilineal, to one of these three chiefs. It would seem that chieftainship is the most enduring feature of the lineage. Lineage name, ancestral home, and lineage real estate may all disappear,

<sup>10</sup> Details concerning the Clear Lake Pomo organization will appear in a forthcoming paper to be issued by the University of California.

but the chief usually remains and serves as the focus for the activities of the lineage and as the central figure from which all relationships within the lineage radiate. The lack of lineage-owned land among the Pomo of Cigom village indicates that we may regard this village as having gone a step further than Kupa village in the matter of political amalgamation of the lineages. It is conceivable that the next step among the Pomo of Cigom might have been ascendancy of one chief over the other two with the obliteration of the lineages and the substitution of true political relationship of the chief to his followers.

From the examples I have given it seems not unlikely that lineages, either patrilineal or matrilineal, underlie the political organization of all of the Californian tribes. In favor of this possibility is to be noted the fact that wherever genealogical information has been gathered lineages have been found. This is true even among the Yurok, where Dr. T. T. Waterman has recorded extensive genealogies and censuses of villages. Among the Yurok, however, the wealth concept and the utter absence of chiefs in the usual sense of the word obscure the lineage idea. The wealthy man is the most important person in each village, there being no chiefs. As the possession of wealth is a variable matter and this world's goods have a tendency to slip out of the hands of one family into the hands of another, the wealthy man can hardly be regarded as the equivalent of the hereditary lineage chief of other parts of California. On the other hand this weakening of the lineage through the absence of a chief is offset by the strong patrilocal tendencies of the Yurok.<sup>11</sup> If one may speculate as to possible history, it might be imagined that at one time the Yurok did possess well defined localized lineages with patriarchal chiefs like the Miwok and Cahuilla, that development of the wealth concept weakened the chiefly and local features of their lineages, and that to a certain extent the bonds of obligation created by the wealth concept subverted the bonds of lineage.

The wealth factor is not the only one which would tend to weaken the localized, autonomous lineage. A favorable living

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<sup>11</sup> A. L. Kroeber. Handbook of the Indians of California, B.A.E., Bull. 78, chapters 1-4, 1925.

environment would indirectly operate against the continuance of localized autonomous lineages, inasmuch as it would make possible the living together of two or more lineages. Such co-residence carries with it naturally enough the corollary of a surrender of a certain amount of autonomy on the part of each lineage in the combination. Wherever two lineages dwell together it is obvious that certain territorial ties are present which must be regarded as over and above the kinship ties which operate within each lineage and serve to make each a compact, consanguineous group.

Two concepts which are particularly strong among the Miwok, the Cahuilla, and the Serrano tend to strengthen and perpetuate the lineage and to preserve at least a memory of past political autonomy on the part of each lineage. The two concepts I refer to are hereditary chieftainship and the belief in an ancestral home at which the forefathers of the lineage dwelt.

Professor Kroeber suggests that even among the Yuman tribes on the Colorado river, notably the Mohave, Yuma, and Cocopa that are today organized into strong coherent tribes with non-localized sibs, quite the opposite of the tiny, patrilineal, politically autonomous lineages I have been discussing, a localized lineage organization may once have existed, for when certain of the Mohave myths are stripped of their supernatural elements they appear to tell of the origin of localized paternal lineages which later settled in the present abode of the Mohave, became scattered over that abode, and were thus transformed into the non-localized sibs of the present day Mohave nation. Mohave mythology, in short, presents a picture of organization that quite parallels that of the related Diegueño tribes, who until Caucasian invasion lived in politically autonomous, localized lineages. A problem of great interest among the Mohave, Yuma, and Cocopa would be to determine the factors that welded the hypothetical localized lineages into great warlike tribes and at the same time transformed these lineages into true father-sibs or gentes. It is not unlikely that movement from a former desert homeland, in which large aggregations of people were not possible, into the agriculturally

fertile valley of the Colorado brought about a unification and commingling of formerly distinct, autonomous lineages.

A word as to the relation of lineages to moieties seems worth while. With the possible exception of the Yokuts for whom information is lacking, the peoples with moieties in California have also localized lineages. Moreover, there are a number of peoples such as the Diegueño who have the lineages but not the moieties. Owing to the wider distribution of the lineages it seems logical to assume that they are the earlier and that the moieties are the later. Without regarding the distribution it seems to me, however, that this same assumption would be arrived at on *a priori* grounds since the moiety embraces a large number of people, often several thousand as among the Sierra Miwok, whereas the lineage embraces only a very limited number of people who trace their relationship to one another genealogically. Of the two groupings it seems natural to suppose that the lineage is the earlier since really no organization is necessary, the facts of consanguinity serving as the bond and relationships being, as it were, automatically established with the advent of each individual into the world. The moiety, on the other hand, embracing as it does a large number of people appears to me to be conceivable only as a much later development than the lineage.

The limited family of father, mother, and offspring is, of course, a universal institution. The extended family which embraces relatives both through the father and the mother is equally a biological group like the limited family, but it is a group which, according to Rivers, seldom functions socially. In its unilateral form of the joint family of Rivers,<sup>12</sup> or the lineage as I have designated it, the extended family does occupy an important place in primitive society. It is this unilateral aspect of the extended family which I have discussed for California, showing that it was in certain parts of the state an autonomous, political unit, the probable forerunner of the later village community.

A closer study of the Californian peoples will doubtless make clear the steps by which autonomous lineages combine to form

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<sup>12</sup> *Op. cit.*, 14-16.

political units of a higher order. In California, as I have demonstrated, the lineages existed both as autonomous political units and as integral parts of larger political units with their distinctness, however, more or less maintained within the body politic. A third stage, in which the lineages had completely lost their distinctness and become welded into a single body politic, perhaps existed in the Channel region of Southern California, but all opportunity of obtaining evidence is gone. It is possible that we are justified in regarding the Colorado River tribes, with their keen sense of national unity, as illustrating this third stage, in which the lineage completely disappears as a localized political unit.

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# MAYA INSCRIPTIONS: THE VENUS CALENDAR AND ANOTHER CORRELATION

BY JOHN E. TEEPLE

PAGES 46-50 of the Dresden Codex are generally recognized as a Venus calendar, 65 Venus years of 584 days each being equal to 104 of our 365 day years.

If a Venus year was thought by the Maya to equal exactly 584 days, then the Venus year could end at only 5 places in the haab on account of the common factor 73, and we find, in fact, the top line of month dates showing only 5 places in the haab for the end of Venus years, i.e., 7 Xul, 6 Kayab, 0 Yax, 14 Uo and 13 Mac. In the bottom line of month dates, however, we find an entirely different set of positions, i.e., 2 Kayab, 16 Chen, 10 Uo, 9 Mac and 3 Xul. These latter dates are uniformly four days earlier in the year than the former ones, and a plausible explanation is that when the accumulated error of the calendar amounted to about four days a corresponding change was made to a new calendar. This error was supposed to accumulate in about 61 Venus years. Now, using the first set of month positions in the calendar where every fifth year ended with Ahau 13 Mac, we find that the 61st Venus year ended by the calendar on 5 Kan 7 Xul. Deducting the four-day error, it actually ended on 1 Ahau 3 Xul, so we change to the bottom row of month positions and our calendar is good for another 61 Venus years, when a new four-day change must be made from 5 Kan 2 Kayab to 1 Ahau 18 Pop, etc. Having the system, we can easily recover the lists used by the Maya during the period in question. Each date in the following table is obtained by adding 61 Venus years less four days to the preceding date. Seventy-three such dates in succession would make the complete circuit of the haab and return to the starting zero date.

1 Ahau 3 Yaxkin	1 Ahau 18 Uo
1 Ahau 18 Kayab	1 Ahau 13 Mac
1 Ahau 8 Yax	1 Ahau 3 Xul

By inserting these six dates in this order at the end of the fifth year on page 50, and filling in the other month dates, we should have a calendar good for 366 Venus revolutions, or nearly 600 years. It will be noticed that the second, fifth, and sixth dates above are used below on Dresden calendar, and the fourth one is inserted on page 24 with no series accompanying it and no apparent purpose except to worry Maya scholars as it has done in the past.

We know from the above that at some time 1 Ahau 3 Yaxkin was a Venus calendar zero date, but this is only a calendar round date whose position in the long count is unknown, and so we must now turn from the Codex to the inscriptions, and, fortunately, two of these are very clear.

Altar K at Copan, instead of an introducing Glyph, has a Venustun sign which can likely only mean the end of a Venus year. There is probably another Venus sign immediately after the date in Glyph 7, (Maudslay's drawing), though this may only be an ending sign. The date, as deciphered, by Morley, is 9.12.16.7.8 3 Lamat 16 Yax. Being Lamat this is probably a Venus calendar date (only Ahau, Kan, Lamat, Eb and Cib can end Venus years in the calendar) and the actual Venus date may be 3 Lamat, or may be 1, 2, 3, or even 4 days earlier depending on how long the calendar has been in use.

Turning now to the calendar on pages 46-50 of the Dresden Codex we find that 3 Lamat ends the 37th Venus year of whatever calendar is in use at the time. Deducting 37 Venus years (3.0.0.8) from 9.12.16.7.8 3 Lamat 16 Yax leaves 9.9.16.7.0 1 Ahau 3 Yaxkin as the zero date in use at that time. We can now place our other zero dates in the long count as follows: 4.18.17.0 apart:

9.4.17.8.0 1 Ahau 13 Kankin  
 9.9.16.7.0 1 Ahau 3 Yaxkin  
 9.14.15.6.0 1 Ahau 18 Kayab  
 Probably omitted 1 Ahau 8 Yax  
 9.19.7.14.0 1 Ahau 18 Uo  
 10.4.6.13.0 1 Ahau 13 Mac  
 10.9.5.12.0 1 Ahau 3 Xul, etc.

In passing from 1 Ahau 3 Yaxkin to the next zero date we can either add 61 x 584-four days to 9.9.16.7.0 thus reaching 1 Ahau

18 Kayab at 9.14.15.6.0, or we can subtract four  $\times 584$  + four days, giving again 1 Ahau 18 Kayab, then add two calendar rounds to reach the beginning of the next calendar at 9.14.15.6.0. The latter was evidently the method used on page 24 of Dresden Codex. Starting from 9.9.16.7.0 1 Ahau 3 Yaxkin the scribe has to subtract four Venus years and four days, i.e., 2340 days. One hundred forty days takes him to 9.9.16.0.0 4 Ahau 8 Cumhu, an important date to notice, and 2200 days more comes to 1 Ahau 18 Kayab. Adding two calendar rounds gives 9.14.15.6.0 1 Ahau 18 Kayab, the next zero date.

Instead of passing from one zero date to the next, one may desire to pass immediately from one to the second or third ahead, in which case the correction must be eight or twelve days, respectively. For a four-day correction take the 61st year, for an eight-day one, the 57th year, for a twelve-day one, the 53rd year, etc. This gives the calendar round date, and the position in the long count can easily be obtained by adding the proper multiple of 4.18.17.0 to the zero date used.

The correction of four days in 61 Venus years is not enough; it should really be nearer five days, but the artificial nature of the calendar demands a correction of four or a multiple of four. About once in 300 Venus years it would be necessary to make an eight-day correction instead of a four-day one to keep the calendar and planet in accord. Suppose such a condition arose near the end of the 1 Ahau 18 Kayab calendar, then, instead of changing at the 61st year to 1 Ahau 8 Yax, they would change at the 57th year to 1 Ahau 18 Uo as the zero date, thus making an eight-day correction. This would bring the 1 Ahau 18 Uo date and all following ones back two calendar rounds, and would entirely omit 1 Ahau 8 Yax as a zero date. Such a computation is indicated by the numbers on page 24 of Dresden Codex, second row of figures from the top. The number 4.8.12.0 recorded there is 57 Venus years with an eight-day correction, just what would be needed to pass from 1 Ahau 18 Kayab direct to 1 Ahau 18 Uo, if 1 Ahau 8 Yax were to be omitted entirely as a zero date. The next number 9.11.7.0 is the same 57 Venus years with an eight day correction plus the regular 61 Venus years with a four-day

correction. Again, it is just the amount needed to pass from 1 Ahau 18 Kayab, through 1 Ahau 18 Uo to 1 Ahau 13 Mac as zero date, omitting 1 Ahau 8 Yax as before. The next number, 1.5.14.4.0, is the same as the first, 4.8.12.0, plus four complete rounds of the Venus calendar or eight calendar rounds besides, and I do not see its exact connection. It would reach to a 1 Ahau 18 Uo far later than the time when the latter was a zero date for the Venus calendar. It may be meant for the distance between zero dates when one should be dropped i.e., using 5, then dropping the sixth, but it is just twenty-six tuns too long for this distance.

It seems a fair guess that these pages of Dresden Codex were originally computed about the time that the calendar changed from 3 Yaxkin to 18 Kayab about 9.14.15.6.0, and were copied at a much later date, at about the time they were needed, with interpolation of 18 Uo on page 24 and of the 13 Mac and 3 Xul dates on pages 46-50, and possibly of the second row of figures on page 24. Notice the gap of nearly two hundred years between the time when the 18 Kayab calendar ended and the 13 Mac calendar began, with nothing in the manuscript between except the one interpolation of 18 Uo.

Turning again to the inscriptions, we have one other piece of evidence for the position in the long count. The wooden lintel of Temple C at Tikal (Maudslay drawing volume III, No. 78) gives a date 11 Ik 15 Chen which is usually and apparently safely considered to be 9.15.12.2.2, 11 Ik 15 Chen, and in the immediately following Glyphs is a statement that "the Venus year ended in Kayab 24 days from a new moon day." Now the 10th year of our 1 Ahau 18 Kayab Venus calendar would have ended on 9.15.11.10.0 1 Ahau 18 Kayab, and the actual appearance of Venus might have been a day or two before at 16 or 17 Kayab. There was a new moon about 9.15.11.11.3, just twenty-four days after 17 Kayab, all of which at least is in agreement with our long count dates.

These are the only positive statements regarding Venus so far found in the inscriptions. There are other references more or less vague, such as the lintel of Temple 1 at Tikal (Maudslay 3, 74) where the Venus sign is near a Glyph which may mean 6 Caban

and may refer to 9.15.12.14.17 6 Caban 5 Zotz, which would be about 122 days before inferior conjunction. Again, on Altar R Copan is a Venus sign, but whether it refers to 9.16.12.5.17 6 Caban 10 Mol, which would be 109 days before inferior conjunction, or whether to some other date is not clear. Stela J at Quirigua and Stela P at Copan are no better. Stela K at Quirigua displays the Venus sign prominently in the introducing Glyph, but these late Quirigua stelae disagree with all other Mayan monuments regarding the position of new moon, and so we should suspect their statements on other astronomical data also. The date which might be meant for the end of a Venus year is 1 Oc 18 Kayab 10.10 before 9.18.15.0.0, while the Venus calendar calls for an ending exactly 2 years (2.0.10) later at 3 Ahau 18 Kayab.

I feel reasonably sure that the above interpretation of the Venus calendar in the Codex is correct. The position of the zero dates in the long count is not so sure, but the only two direct statements in the inscriptions agree with our dating, and in any case a shifting of the zero dates through two calendar rounds, which would be about the only change possible, would not affect the Venus dates more than four days.

In the matter of correlation of Mayan and Christian dates, it was shown in previous articles that an eclipse of the sun occurred on 9.16.4.10.8 or possibly 9.16.4.10.7, and that the sun passed the moon's nodes on 9.16.4.10.6 or possibly 9.16.4.10.7. Now we may add that in the 1 Ahau 18 Kayab calendar the 18th Venus year should end on 9.16.4.9.12 9 Eb 5 Kankin or somewhere within the preceding four days to 9.16.4.9.8, and consequently Venus at inferior conjunction should be between 9.16.4.9.4 and 9.16.4.9.8. Our problem then is to find an eclipse of the sun which occurred between 0 and two days after the sun passed the moon's node and between nineteen and twenty-four days after an inferior conjunction of Venus. I am not an astronomer, but it seems likely that not more than five or ten dates in a thousand years would meet these conditions. At any rate, an examination of all eclipse dates between 462 and 517 A.D., (the date commonly assumed for 9.16.4.10.8 is from 480 to 500), showed only a single one that even

remotely met the conditions imposed; this was the eclipse of November 22, 504 Julian calendar. This eclipse occurred a little less than two days after the sun passed the moon's nodes and twenty-three days after Venus inferior conjunction, thus answering perfectly. Until further evidence is brought forward I think we may say that in the time of the Maya Empire 9.16.4.10.8 was November 22, 504. Brought forward to Spanish times this would make 12.9.0.0.0 13 Ahau 8 Kankin occur on February 22, 1545, O.S., or March 4, 1545, Gregorian. According to this reckoning the discrepancy that had arisen in the calendar by Spanish times amounted to three tuns with some writers, six tuns with others, and nine tuns with most, and this is why it has seemed to me that for the calendar as used in Maya Empire times we must depend primarily on the astronomical evidence in the inscriptions and Codices.

If we assume that the Maya dropped out about every sixth zero date, as I think they did in the case of 1 Ahau 8 Yax, (which, of course, is an assumption) then we should at present be using a Venus calendar whose zero date was 13.8.0.0.0 1 Ahau 13 Yax, and the third year of the calendar would have ended on 13.8.4.15.12 11 Eb 0 Yaxkin, and the Venus conjunction would have been on 13.8.4.15.8 which was July 3, 1924, in our calendar. The actual Venus conjunction occurred July 1, 1924, which is not bad agreement for a calendar that was in use over 1500 years ago. This, of course, shows the accuracy of the calendar and not the correctness of the correlation.

Another possible date for 9.16.4.10.8 is June 6, 327, and this satisfies our present conditions just as well as November 22, 504. A casual survey shows no other entirely satisfactory dates between the time of Christ and 1000 A.D. September 20, 461, and August 8, 370, fall just outside our limits, but exact computation might show them possible. I believe a competent astronomer could now study the subject and give us a final decision on some one exact date. This would be very desirable.

#### SUMMARY

1. The system and use of the Venus calendar in Dresden Codex pages 24 and 46-50 is explained and the succession of calendar round zero dates of the Venus calendar is determined.

2. By statements in the inscriptions these calendar round dates are placed in the long count.

3. Knowing now in Maya dates the new moons, eclipses, days of conjunction between the sun and the moon's nodes, and the conjunctions of Venus, we are able to specify a set of astronomical conditions for a date like 9.16.4.10.8 12 Lamat 1 Muan, which could recur only at very long intervals.

4. These conditions lead to November 22, 504, Julian calendar, as the only possibility for 9.16.4.10.8 at least between the limits of 462 and 517 A.D.

5. According to this correlation a Maya New Year's day occurred on 13.8.5.9.17 9 Caban 0 Pop, which was March 9, 1925, in our calendar.

NEW YORK CITY.

## ON NATCHEZ CULTURAL ORIGINS

BY WILLIAM CHRISTIE MAC LEOD

THERE are several traits of Natchez culture which admirably illustrate its close genetic relationship with the cultures of Central America. Tentatively at least, it may be presumed that the linkage has been through Florida by way of the Antilles.

### STUPEFACTION OF MORTUARY VICTIMS

Adult mortuary victims were stupefied before being put to death among many peoples from Peru to North America. In Peru "they made them drunk before they were put to death."<sup>1</sup> In the Isthmian region of Central America some nations permitted the victims to die by drinking poison, others permitted the victims to become senselessly intoxicated with drink during two days of the funeral festivities and then buried them alive with the deceased while unconscious. Among the natives of Michoacan in Mexico, "the victims were stupefied with drinks and clubbed." Among the Mixtecs of Oajaca slaves doomed to mortuary immolation were made drunk and then strangled.<sup>2</sup>

Among the Natchez, every mortuary victim was narcotized before strangling by being made to swallow pills of tobacco. Dumont,<sup>3</sup> describing an immolation of an old woman writes:

she seated herself with her legs crossed. There she was made to swallow three pills of tobacco *of about an inch in diameter*, with some swallows of water she drank at intervals. As soon as it was seen that she was going to vomit, her head was covered with a deer-skin. . . .

The old lady was then immediately strangled with a cord, by those of her relatives who acted as immolators.

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<sup>1</sup> Salcamayhua, in *Rites and Laws of the Incas*, Hakluyt Society Publications, 1873, p. 100.

<sup>2</sup> H. Bancroft, *Native Tribes*, v. 1, pp. 781-785; v. 2, pp. 621, 623.

<sup>3</sup> Dumont, in Swanton, *Tribes of the Lower Mississippi*, Bulletin No. 43, 1911, Bureau of American Ethnology, p. 154.



Stupefaction rather than nausea was apparently the object of the pills. Penicaut wrote of the immolations<sup>4</sup> that:

they made each . . . swallow three pills of tobacco, and gave them a draught of water to drink in order that the pills should dissolve in the stomach, which caused unconsciousness. . . .

Du Pratz wrote that in the funeral procession were the eight relatives of each victim. Of these relatives one carried<sup>5</sup>:

a dish, in which were five or six balls of *pounded* tobacco to make him swallow in order to stupefy him; another bore a little earthen bottle holding about a pint, in order to make him drink some mouthfuls of water in order to swallow the pellets more easily. . . .

We have note of the mortuary immolations of many peoples in North America. The data are particularly abundant for the Northwest Coast. But only among the Natchez do we have any indication that the victims were stupefied first.<sup>6</sup>

#### TOBACCO, AND DENTAL BLACKENING

Unfortunately, we have no note of the complete composition of the tobacco pills which the Natchez use. Dumont writes merely<sup>7</sup> that:

I perceived a juggler who was blessing the pills of tobacco which had been prepared. This scene was accompanied by long howlings. . . .

All available evidence indicates that in southeastern North America tobacco was never used for chewing, but always for smoking. The suggestion which might be made, that the Natchez use of tobacco pills or swallowing and stupefaction has been diffused along with mortuary customs *as part of a mortuary com-*

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<sup>4</sup> Penicaut, p. 141, *ibid.* (Penicaut, Du Pratz, and Dumont were all eye witnesses.)

<sup>5</sup> Du Pratz, p. 146, *ibid.*

<sup>6</sup> S. Burder, *Oriental Customs*, 1839, p. 208, notes that the "compassionate ladies" of Jerusalem in the Græco-Roman period gave wine and frankincense to criminals about to be executed in order to stupefy them. This compares with the above American facts and recalls the sacrifice of the cross. It contrasts with the electric chair and other brutalities of Euro-America. It may also be compared to the Greek methods of execution, decent and humane, as exemplified in the death of Socrates. However, the American Indian immolations were not of criminals.

<sup>7</sup> Dumont, in Swanton, *op. cit.*, p. 156.

*plex* from a people who used tobacco for chewing is borne out by the existence among the Natchez and their immediate neighbors of the custom of artificial blackening of the teeth which appears to have a genetic connection with the chewing of herbs with lime as found in Asia and America.<sup>8</sup>

Data on dental blackening are available for the Natchez, Houma, Bayougoula, and Tunica, all of whom are neighbors of the Lower Mississippi. The practice was *confined to the women*; it was *artificial, impermanent*, and considered *esthetic*. Gravier writes<sup>9</sup> of the Natchez women that:

Most of them have black teeth, which are considered beautiful among them. They blacken them by *chewing the ashes of tobacco mixed with wood ashes*, and rubbing them every morning.

Iberville says that the Bayougoula women considered black teeth beautiful,<sup>10</sup> and obtained the blackening:

by means of *an herb crushed in wax* (or putty); they remain black for a time and become white again.

#### THE NATCHEZ SERVITORS

The data presented above form part of the circumstantial evidence in support of the suggestion to be made in this last connection.

The *allouez* of the Natchez were the household servants of the members of the royal family. Concerning their nature we have notes to the effect that when an heir to the throne is born there is chosen from among the infants whichever might be desired for the lifelong servants of the new-born prince. The *allouez* serve

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<sup>8</sup> Compare E. Nordenskiöld, *The Material Culture of Two Tribes of the Grand Chaco*, 1919.

<sup>9</sup> Gravier, p. 54, *ibid.* On p. 289 he notes dental blackening for the *women* of the Houma and of the Tunica.

<sup>10</sup> Iberville, p. 276, *ibid.*

Apparently the trait was of restricted distribution. Lawson, *History of Carolina*, 1715, p. 282, notes of the Carolina Indians that: "Their teeth are yellow [dirty] with *smoking* tobacco, which both men and women are much addicted to. . . ." "Although they are great smokers they are never seen to take it in snuff or chew it." *Ashes of shells in hot water* were used in the removal of face and body hair by the Acolapissa (Penicaut, in Swanton, *op. cit.*, p. 282); and plant ashes were used as a salty seasoning for food in Virginia and elsewhere in the southeast. (Beverly, *Virginia*).

virtually or actually as slaves. *At the death of their royal master or mistress they are strangled* "by ministers appointed for the purpose," and their bodies are carried off by their relatives.<sup>11</sup> Possibly a similar institution obtained among the cognate Taensa.<sup>12</sup> Very probably such existed among the Calusa of southeast Florida. Natchez and Taensa both may formerly have lived geographically nearer to this latter people.<sup>13</sup>

The institution of the *allouez* is a sort of Chinese puzzle. It now appears to me, however, that it is merely something of the nature of, and genetically related to, a similarly peculiar institution of the peoples of Central America. Among the peoples of Yucatan (Maya) and those of the Valley of Mexico (Nahuatl or Aztec) and others, the five supplementary or intercalary days of the year were considered to be unlucky days. Among the Aztec at least, *persons born on these days were reserved for immolation*

<sup>11</sup> See Le Petite in Swanton, *op. cit.*, p. 142. I have assembled and discussed some data on the *allouez* in my volume on *The Origin of the State*, Phila., 1924, p. 91, *seq.*

<sup>12</sup> Tonti, in Swanton, *op. cit.*, p. 260. writes of the Taensa that when the king dies "they sacrifice his youngest wife, his house steward, and a hundred men to accompany him in the other world." Iberville, p. 267, *ibid.*, says: "They had the custom at the death of the chief of killing fifteen or twenty men or women to accompany him in the other world, to serve him. Many, according to what is said, are enchanted to be of this number; I doubt it very much." *The number of the immolations among the Taensa is probably very much exaggerated.* In 1699 two Natchez kings died, one several months after the other. Only seven persons were known to the French as having been immolated at the obsequies of the first; at that of the second there were two women, three men, and three children; this latter funeral is perhaps the one at which Montigny writes that there were thirty immolated. At the funeral of a subsequent Great Chief, brother to the king, there were about thirteen immolations at the funeral, and it seems that *about eight others were reserved for immolation upon the later disinterment of the bones.* At this funeral it is evident that but for French interference there might have been *more than fifty immolations.* In the earlier immolations referred to it is quite possible that the number of immolations was concealed from the French. We may see, however, that the number of *allouez* attached to any one member of the royal family may be described as small; and we have seen that the number was dependent on the number of sucklings in the tribe at the time of the birth of a prince. The more populous the tribe, therefore, the greater the number of involuntary servitors. (Others besides *allouez* were immolated.)

<sup>13</sup> See Swanton, *The Early History of the Creek Indians and their Neighbors*, Bull. No. 3, 1924, Bureau of American Ethnology, and Mac Leod, *Natchez Political Evolution*, AMERICAN ANTHROPOLOGIST, 1924.

at the royal obsequies.<sup>14</sup> The Natchez selection of *allouez* for both immolation and service during life appears to have had calendrical consideration behind it, inasmuch as the selection of an individual for such service and fate was dependent on the coincidence of their birth with that of the prince.<sup>15</sup>

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<sup>14</sup> Among the Aztec the intercalary days were called *nemontemi*; boys and girls born then might be called, respectively, *nemoquichli*, and *nencihuatl*. At birth, in central America, an astrologer was called in to cast the horoscope of the new-born, help chose a *nagual* or guardian spirit, and so forth. See D. G. Brinton, *Nagualism*, American Philosophical Society, Jan., 1894; Brasseur de Bourbourg, *Histoire*, v. 2, pp. 466-467; v. 3, pp. 287, 502-536, 560, 573, H. Bancroft *op. cit.*, v. 2, pp. 271, 273, 277, 508, 611, 679, 759. (Bancroft is excellently documented.)

<sup>15</sup> Lederer writes of the tribes of the Appalachian highlands of western Virginia and Carolina that to keep account of "time and other things they keep a string or leather thong tied in knots of several colors." He adds: "I took particular note among the Oenacks, because I have heard that the Mexicans use the same, of *small wheels* serving for this purpose. . . ." See J. Lederer, *Journey*, 1671, p. 8. Despite certain suspicions attaching to Lederer's veracity in some things, I have reason to credit his observation here. We shall not here discuss it fully, but note the bearing on the above described social effects of the calendar.

## RUDOLF MARTIN

By BRUNO OETTEKING

DEATH again has called upon a representative man, at once a pathfinder, a guardian, and a leader in a science sometimes called young but as old as humanity itself. Anthropology has suffered a severe loss through the death, on July 11, 1925, of Dr. Rudolf Martin, who since 1917 had held the chair of physical anthropology in the University of Munich, Germany.

Born July 1, 1864, in Zurich, Switzerland, as the only son of parents whose place of residence was Offenburg in Baden, he spent his boyhood and received his pre-university education in this latter city. His academic studies were pursued in the universities of Freiburg in Baden and Leipzig, and he received his doctor's degree in the latter place with a dissertation on Kant. The familiarity with this philosopher's speculation on the racial differentiation of mankind, and still more so his anatomical studies under Wiedersheim and Weismann, became for Rudolf Martin the stepping-stones on a long journey of scientific endeavor on which he thus embarked well equipped in his search for the truth.

Rudolf Martin conceived his mission at a time when the first attempts had been made toward a standardization of anthropological methods. After extensive activities as a research assistant in a number of institutions, he established himself as *privatdozent* for (physical) anthropology at the University of Zurich in 1891, advancing to the posts of professor extraordinarius in 1899, and professor ordinarius and director of the Anthropological Institute in 1905. Already at the beginning of his academic career, Rudolf Martin's future life work lay clearly outlined before him, and the present writer, once his devoted pupil, remembers very well a remark made two years ago during conversation in the arbor of his villa in one of the suburbs of Munich, that his later contributions to anthropology are only the fulfillments of the fundamental ideas he had conceived and fostered during those early stages. An innate sense for the essentials of a problem, an easy recognition

of the feasible held him aloof from mere speculation while, on the other hand, they guided him in the constructive work which he left us in his *Lehrbuch der Anthropologie* as a life source of anthropological ways and means. A summary of methods and subject-matter in general, excepting the biological ones proper, up to 1914, the year of its first issue,<sup>1</sup> it incorporates, nevertheless, such an overwhelming wealth of original work that the book represents a true scientific portrait of its author. Not given to loud emulation in the search for scientific truth and application, he ripened in the eager calmness of the Zurich Institute ideas and plans which by their sheer merits drew students from many lands to that lovely Swiss city. Always a patient and amicable teacher, he spent hours with them daily in the Anthropological Institute, advising, correcting, and allowing them to participate in the try-out of new conceptions and ways of methodical approach. When he thus made his students' interests his own (and they were indeed well harbored in his scientific guardianship), his lecture and practical courses were another source of real delight. Without resorting to rhetorical mannerism, his delivery was enlivened by the unassuming simplicity of truthful interpretation, the logic of his exposition, the concreteness and reliability of his description, and above all by an inimitable fluency and facility of expression. These are indeed precious assets to an academic expositor, and the writer remembers another remark of his master and friend, to the effect that on the occasion of his inaugural lecture as *privatdozent* before the members of the faculty he caused a slight surprise by speaking without manuscript.

Rudolf Martin's academic activities were interrupted in the spring and summer of 1897, by an exploration trip to the Malay Peninsula, whose aboriginal tribes had always greatly attracted him. The scientific results of this journey are laid down in a monumental volume published in 1905 under the title *Die Inlandstämme der malayischen Halbinsel* (Jena). In this comprehensive work, as previously in his "Zur physischen Anthropologie der Feuerländer" (*Archiv für Anthropologie*, 1893), and in a number of other papers, the methodologic factor is an outstanding feature,

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<sup>1</sup> The second edition is in preparation and may be expected soon.

which, in fact, is surpassed only by the clarity and resourcefulness of his representation of the respective topics. These works and the "System der (physischen) Anthropologie und anthropologischen Bibliographie" (*Korr. Bl. Ges. Anthropol.*, 1907) represent important stations on the road to his crowning effort, the *Lehrbuch*. This latter he finished in Paris after he had resigned the Zurich professorship in 1911 on account of failing health and the urgent necessity of devoting his full attention to the completion of his work. Returning to his home country as a refugee after the outbreak of the war, and deprived of most of his literary apparatus and art treasures, he, nevertheless, had saved his finished manuscript, which then appeared in the same year, 1914, as the *Lehrbuch der Anthropologie*, the first comprehensive representation of the science of Physical Anthropology, and what is of still greater value, a means of wide and reliable reference. It also was during the war that after the death of Johannes Ranke he was called to the chair of anthropology in the University of Munich, a position which he held up to his premature death, honored and respected by his colleagues and pupils, and by his government.

Rudolf Martin devoted the last period of his life to the study of the effects upon the growing generation, of the nameless privations caused by the contingencies of the war. He likewise called into existence as a remedy the nation-wide movement for physical culture, thus enlarging on the already existing routine of bodily exercise for the German youth. A rich list of writings are devoted to this subject. His principal scheme, however, of the physical investigation of the school children of Munich, carried on under the most modern viewpoints advised by him in the reorganized Anthropological Institute of the University, was not quite completed. It will doubtless see completion at the hands of friends. They will also continue the publication of the *Anthropologischer Anzeiger* founded in 1924 with financial cooperation from American sources in answer to an urgent need of physical anthropology in Germany, and whose editorship was entrusted to the able care of the deceased.<sup>2</sup>

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<sup>2</sup> The new German Society of Physical Anthropology, founded August 3, 1925, in order to meet the exclusive interests of this science, has adopted the *Anthropologischer Anzeiger* as its official organ of publication. The present chairman of the Society and editor of the journal is Professor Eugen Fischer of Freiburg, Baden.

Rudolf Martin is no more, but his memory will live on. As a scientist, despite his unceasing enthusiasm, he never acted rashly. Rather cautious in respect to new ideas and their realization, whether his own or those of others, he was a scientist on whose final judgment one could absolutely rely, while on the other hand, he was an honest keeper of time-enduring treasures. This light note of conservatism called forth in his students unswerving confidence in his guidance and the precious results reaped from it. A broad education and a warm interest in the plastic and free arts which frequently lured him into their realms, served to mitigate his scientific severity, not permitting it thus to estrange itself from the source of all scientific and human conceptions. It is, thus, in grateful appreciation of his scientific standards, the sympathetic interest which he entertained for his students, and of all his fine and valuable traits that this obituary is written.

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## BOOK REVIEWS

### PREHISTORY AND PHYSICAL ANTHROPOLOGY

*The Antiquity of Man.* SIR ARTHUR KEITH.

2 vols, 753 pp., 266 ill. New and enlarged edition, completely revised and reset. Philadelphia. J. B. Lippincott, 1925.

The first edition of this work appeared as one volume in 1915. In ten years much has been learned concerning man's antiquity and much of this added knowledge receives treatment in the new edition. The new matter is covered by seven new chapters as follows: II. Neolithic Communities in Crete, Egypt and Babylonia, V. Continental types of Man during the Later Paleolithic Periods; XVIII. Malta and the Land-Bridge to Africa; XIX. Ancient Man in South Africa; XX. Rhodesian Man; XXI. The Face and Status of Rhodesian Man; and, XXIII. The Wadjak and Talgai Men. Four of the old chapters have been renamed.

The author's approach remains practically the same but the theories which he upheld in the first edition have been very much modified to conform with the trend of recent developments in the field of man's antiquity. While "interested in abstract problem of man's origin and antiquity" he is "more directly concerned with the concrete question of the origin and antiquity of men of our own type." Where and when did the European type of man come into existence? Sir Arthur believes that "all indications point to the East as his evolutionary cradle," but he adds:

So far the oldest human remains found in Egypt and Mesopotamia are of people who differ from the present inhabitants of these lands in matters of detail only.

In the first edition, much emphasis was placed on the evidence deduced from such finds as the skeletal remains from Galley Hill and the Ipswich skeleton. Most authorities were then of the opinion that full-blown modern man made his advent into Europe in the latter third of the Pleistocene Epoch; they believed this to have been his first appearance in that region. Sir Arthur attempted to prove that this was not his first but his second appearance. He now admits that the recently accumulated evidence does not favor the contention he then held. To quote his own words:

I have expected, during these past ten years that remains of the modern type of man would be found under circumstances which would prove their early Pleistocene Age. No discovery of the kind has been made. Nay, one of the discoveries on which I leaned—that of the Ipswich skeleton—has given way . . . . Then other evidence on which I relied to prove the permanency of the modern type—to prove how resistant it is to evolutionary change—has given way.

That is to say, the Egyptians have not bred true to type for 6000 years as he had supposed; neither is the English Neolithic type the same as the modern English type.

The author's view regarding the duration of the Pleistocene Epoch has also suffered a change: he has reduced it from 400,000 to 200,000 years; in fact he sees no objection to reducing again by one-half. He admits that

all the early Pleistocene men, who are beyond question of that date, are more brutal, more simian, than the Galley Hill man.

In other words, so far as Pleistocene man is concerned, evolution has proceeded at a more rapid pace than he had previously thought. He even seems willing to give up his last stronghold—Galley Hill—for he concludes

it becomes easier to doubt this evidence than to believe that human evolution ever becomes stationary.

Still another reason has led Sir Arthur to alter his conception of the rapidity and manner of man's physical evolution, and this has to do with the law of uniform or collateral evolution which has a wider significance than he had formerly supposed. Such a law implies that species descended from a common ancestral stock may assume simultaneously characters which the ancestral stock did not possess.

The author believes that migration has played only the most minor part in shaping man's physical evolution.

We have to presume, until we can prove to the contrary, that each racial type has been evolved in that part of the world where now we find it, and we have to apply this rule not only to living races but to extinct and fossil races of mankind.

Rhodesian man comes in for special treatment, especially so far as structural make-up is concerned.

His just place seems to be in the modern stem soon after this stem had broken away from the Neanderthal line . . . . He stands to the modern type in almost the same relationship as Heidelberg man does to Neanderthal man.

Regarding early man in the new world, Sir Arthur has seen no evidence to lead us to suppose that any race preceded the American Indian.

He does not think the primitive nature of *Hesperopithecus*, recently described by Professor Henry Fairfield Osborn as a high form of Pliocene Anthropoid, can be upheld.

The text and illustrations of the two volumes are practically confined to the story of man's organic evolution, as seen through the eyes of an anatomist; in this field Sir Arthur is a master. His illustrations of skulls are for the most part profile and full-face views. Each is set in a standard frame which bounds the chief limits (diameters) of a modern Englishman's skull of mean size. His orientation of the skull is not in harmony either with the horizontal plane of the Frankfort Agreement or with that of Broca—the two horizontal planes recommended by the Committee of the last International Congress of Prehistoric Anthropology and Archaeology.

GEORGE GRANT MACCURDY

*Der diluviale Mensch in Europa.* F. BIRKNER. Innsbruck: Verlagsanstalt Tyrolia, 1925: 148 pp., 2 pls., 278 figs. 3rd. edition.

This neatly printed little book will serve as an admirable introduction for the lay reader or student who wishes to familiarize himself rapidly with the results of prehistoric research in Europe. The specialist will probably be attracted more particularly by the second chapter, which deals with "Die Kultur des diluvialen Menschen in Mitteleuropa," following the more general treatment of Pleistocene culture and preceding a discussion of the spiritual (*geistigen*) characteristics of early man as revealed by art activities and burial customs. The final chapter is devoted to cranial and skeletal remains. Professor Birkner is eminently conservative in his judgments, and the value of his exposition is greatly enhanced by numerous good illustrations.

ROBERT H. LOWIE

*The Axe Age; A Study in British Prehistory.* T. D. KENDRICK. London, Methuen & Co. Ltd., 1925. 174 pp., 19 ills. (Price 6s net.)

This rather original work deals with the cultural advance from Paleolithic hunting to Neolithic farming, particularly in Great Britain. Kendrick undertakes the thesis that the Neolithic complex

is not to be regarded as the culmination of stone age culture but rather as the precursor of the metal era. According to him, no transitions exist between the hunting culture of the Paleolithic and the agricultural civilization of the Neolithic. That is to say, there are no intermediate cultures of gradually increasing complexity leading from the Old Stone Age hunters up to the Neolithic agriculturalists. Consequently, the author maintains that this Neolithic culture is to be regarded as the result of the same revival of human activity that elsewhere manifested itself in the invention and use of metallurgical processes. He further asserts that the Neolithic complex was not established in the British Isles until after the arrival of the barrow-builders sometime around 2500 B. C. and not very long before the arrival of metal.

The author is not quite clear in his exposition of the means by which the Neolithic culture was introduced but, if I understand him correctly, he seems to favor the hypothesis that it was brought into western Europe by a migration of peoples rather than by a slow process of diffusion. In the resulting conflict between the native hunters and the newly arrived farmers the hunting cultures either succumbed or took over certain of the new arts.

As a whole the book is stimulating and should cause considerable discussion in archeological circles, particularly as the chapters on the British barrows and megaliths are rather controversial in nature. In this connection it is interesting to note that although the author is a countryman and colleague of Elliott Smith and Mr. Perry, he has not yet been seduced by the blandishments of their Pan-Egyptian school.

The book contains 19 indifferent illustrations, a short index and a glossary. This last should prove particularly useful to American readers who are perhaps not familiar with such terms as "chalcolithic" and "epipaleolithic."

FORREST E. CLEMENTS

*Un Atelier d'Art Préhistorique Limeuil (Dordogne).* C. CAPITAN et JEAN BOUYSSONIE. Publications de l'Institut International d'Anthropologie, No. 1. Librairie Emile Nourry: Paris, 1924, 20 fr.

This publication on Limeuil is particularly interesting to American archæologists because eighteen of the carvings, the three bone

harpoons and two bone points figured are now in the possession of Logan Museum, Beloit College, having been purchased through the generosity of Dr. Frank G. Logan just after the publication appeared.

The site of the Limeuil excavations is located at the junction of the Vézère and Dordogne rivers in the department of Dordogne, France. At this point a hill rises some hundred and fifty feet above the floor of the valleys. The principal terrace which is about ninety feet above the valley is attained by a gentle slope and is watered by large springs. The top of the hill gives an extended view of both valleys so that the location is ideal for a camp site. However, it seems to have been inhabited first by the Magdalenians. Considerable erosion has taken place since the close of the Magdalenian period and the site has been greatly altered by human agencies. Later generations have walled and terraced the hill and used it for observation posts and forts while middle age and renaissance dwellings are still to be seen here.

The recognition of the prehistoric deposit at Limeuil was made by Dr. Rivier in 1909. His cousin was excavating for the construction of a new wall and in the debris thrown out Rivier found some worked flints and reindeer horn. These were sent to l'abbé Jean Bouyssonie since Dr. Rivier did not feel equal to the task of conducting the excavation. About Easter of 1909 Bouyssonie went to the site and the first stone he turned over proved to be a carving representing three heads of the ox.

Dr. Capitan was notified. Through him a government appropriation was secured, and a lease made with the peasant owner. All the material taken from the site while this lease was in force was sold to the National Museum at St. Germain. Later some buildings were removed and the excavation completed by Bouyssonie and Belanger, the peasant owner. The material taken out at this time was sold to Logan Museum in September, 1924.

Twelve species of mammals, eight species of birds and one fish are represented in the faunal remains, all characteristic of the Magdalenian period.

The flint implements include a large quantity of scrapers, simple, retouched and in combination (i.e., scraper-graver) nuclear scrapers, gravers (single and double) and small flakes. There were forty specimens of the *bec de perroquet* type, fifty drills, a number of blades with retouched back, a quantity of retouched blades and flakes and a great many nuclei besides blades and flakes not retouched.

One hundred seventy-one reindeer horn bases were found all belonging to young animals and all but one attached to a part of the skull. One hundred fifty horn bases of adult animals were found, too, a majority of which were those which had been shed while living. The adult horns were used for making weapons etc., while the immature horns were not.

The harpoons found date the station as upper Magdalenian. The one decorated baton de commandement is also upper Magdalenian. One side of the baton is carved with three reindeers, the other side shows a horse and two fish. Several pieces of bone were decorated with carvings and one reindeer horn has the body and neck of a horse deeply incised.

The carvings on stone are the most important and most interesting of all the material taken from Limeuil. This is the first station in which carvings were found on portable pieces of stone. Later search in the debris from La Madeleine brought similar examples to light and in recent years other caves have produced isolated pieces.

The material on which the carvings are made is a coarse granular limestone usually in slabs less than three inches thick. Nearly all have been broken as if thrown over the cliff after the carving had been made and several pieces show that they have passed through fire. In some cases the slabs show that they were scraped to a smooth surface to receive the drawing, in others no such preparation is indicated.

Some of the figures are executed with the firm strokes of a master artist who evidently knew what he wanted to represent and just how to do it. Others show light lines, parts of the figures many times drawn so that they remind one of the "studies" of more recent artists in which they experiment to see what pose is most to their liking. It is quite possible, however, that these are intended to represent the animal in motion.

Finding a majority of the carvings apparently intentionally broken has led Abbé Bouyssonie to the theory that Limeuil was an art school for Magdalenian magicians and that by breaking the drawings of various species of animals they thereby gained control over their food supply.

The art of Limeuil is realistic and shows keen observation on the part of the artist coupled with excellent memory for details and a remarkable mechanical execution of those details in a durable material.

The reindeer is by far the most frequently represented. The

horse is next in importance. Other figures are those of the bouquetin (mountain-goat), bison (?), ox, bear, rhinoceros and man. The figures at Beloit include the horse, the ox, the reindeer and man.

ALONZO W. POND

*Les récentes découvertes préhistoriques en Indochine.* M. R. VERNEAU. (Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, t. 179, no. 7, 18 August, 1924, pp. 416-418).

In this note Doctor Verneau reports recent finds in Tonkin and Anam, which indicate Neolithic and even Paleolithic stages of culture in this region. In at least two caves the lower strata yield not the carefully polished implements of the recent Neolithic period but hatchets only ground at the edge, if at all. At Keo-Thay scrapers and amygdaloid tools have been unearthed, the material being mainly rhyolite. Skeletal remains suggest a mixed population of partly Indonesian, partly Papuan and even Negrito affiliations.

R. H. LOWIE.

## AMERICA

*Handbook of the Indians of California.* A. L. KROEBER. (Bulletin 78, Bureau of American Ethnology, Washington, 1925.) pp. xviii, 995.

Those who have known that Dr. Kroeber was preparing a compendious monograph on the Indians of California have been eagerly awaiting its publication. They not only felt that there was here a field in which the great mass of data accumulated in the last twenty-five years afforded a splendid opportunity for broad synthetic treatment, and that an analysis of the results should throw a great deal of light upon the larger problems of the aboriginal culture of the continent as a whole: but they were confident that in Dr. Kroeber's hands the task would be supremely well done. This volume of nearly a thousand pages, which is now at last before us, amply confirms this confidence. Although there are yet many gaps in our knowledge, we have in his Handbook, the first adequate study of a single American culture area that has yet been written.

In choosing the method of presentation for his material—a condensed, monographic description of each of the fifty odd tribal groups, followed by a number of chapters of summary and conclusions—Dr. Kroeber has followed, I believe, the only course that would bring out clearly the surprising diversity in detail existing within

this area. It also serves another purpose, in that it reveals how startlingly meagre is our knowledge of some of these groups, and of some aspects of nearly all of them, despite the great amount of investigation carried on during the last generation. For many groups, partially or wholly extinct or greatly modified by European culture, the opportunity of filling the gaps is gone forever, but for others it to be hoped that the data may be rescued before it is too late.

It is manifestly impossible to summarize or discuss in any detail so immense an accumulation of material as is here spread before us. The reviewer must content himself with saying that the data given for the different tribal groups are admirably presented and judiciously proportioned, and that in the summary chapters in which the material culture, social organization and religious beliefs and ceremonies of the whole area are discussed, Dr. Kroeber has gathered together a bewildering mass of detail in a masterly way. The volume is well illustrated and contains a large number of maps of great value. (One of these, by the way, that showing the subdivisions of the Pomo, is bound in the wrong place, being put with the chapters dealing with the Wintun). Although detailed discussion or summary is here out of place, the general conclusions which Dr. Kroeber draws from his material and his long years of personal investigation, demand consideration.

The outstanding result of the analysis of Californian culture is the demonstration of four cultural foci within the limits of the state. Dr. Kroeber rightly emphasizes the fact that the ordinary conception of culture areas is, here at least, unsatisfactory, since there are so many slight gradations between group and group. . . The four cultural foci determined are the Northwestern, with the Yurok as its nucleus; the Central of which the Southern Wintun show the most intense development; the Southern, where the Gabrieleño are most specialized, and the Lower Colorado in which the Mohave, in recent centuries at least, seem entitled to precedence. These foci are not to be thought of as primarily originating centers, for many of the neighboring tribes contributed to the final result. The tribe which seems in each case to have been the hearth of the cultural type, has rather served as the vessel in which these manifold elements have been fused into a definite and characteristic whole.

It is a striking fact that all of the four cultural foci, together with the tribes most strongly influenced by them, occupy quite different environments. The Northwestern is in a land of mountains and



navigable streams rich in salmon; the Central area is a great level, fertile valley with its encircling ranges; in the Southern area we have a sub-arid coast with outlying islands, whereas the Lower Colorado is the American Nile "a stretch of annually overflowed bottom lands in the midst of a desert." Although it cannot perhaps be said that the several cultures are the direct product of their environments, a study of each in relation to its environment affords material of much interest.

Dr. Kroeber brings out the further fact that although from the restricted point of view of California alone, we may speak of four cultural foci, looked at from the wider angle of the whole continent, only one of them, i. e. the Central, may really be regarded as distinctively Californian. For the Northwestern is in a measure a southern extension or outlier of the North Pacific culture, which has here in a favorable environment and concentration of population, taken on a special form. The Southern and Lower Colorado types similarly are to be regarded as ultimately related to the Southwest culture; as two areas in which influences radiating from the Southwest have been regrouped and modified to serve as the basis for two superficially distinct yet really related cultures. The Central area which thus stands out as distinctly characteristic, has, however, played a not unimportant role, since its influences have spread inland to the Shoshonean tribes of the Great Basin and modified their culture, in the same way although not to the same extent as the North Pacific culture has affected the Salish and Athabascan tribes of the Plateau area and the region north of it.

Further important conclusions in regard to this distinctively Californian culture of the Central area, are drawn from the archaeological evidence. For this shows that the culture is wholly of local growth, and may be traced back probably for two or three thousand years. Nowhere here is there any sign of intrusive cultural factors, although there are, it may be noted, indications of changes in the physical type of the people. Here, therefore, just as in the North Pacific area, we find a very ancient culture, fixed in a certain environment and inexorably dominating every people which has come within its sphere. And the surprising thing, the really significant thing, is just this immutability and permanence. Although some slight modifications and improvement in technique are apparent if we compare the objects from the earliest period with those in use in historic times, the change is very small. As far back, thus, as the

period of the Trojan war at the beginning of the first millennium B. C., the California Indians were living substantially in the same fashion as their descendants of today. In the Mediterranean world, on the contrary, civilization has run over a stupendous gamut in the course of these three thousand years. Culture has succeeded culture, empire followed empire, a history overflowing with conflict and storm; whereas here in the seclusion of the Great Valley of California and fronting on the empty expanse of the Pacific, century has followed century of drowsy, uneventful cultural slumber.

Not the least valuable of the final chapters is that in which Dr. Kroeber probes thoroughly the question of the numbers of the aboriginal population, and discusses the causes which have led to their decline. After very careful weighing of the evidence it is concluded that the Indian population of California at the time of the first European contact was approximately 133,000. This figure is much smaller than that of previous estimates by other authorities, but of its substantial accuracy, there can be little doubt. Reduced as it is, over earlier figures, the number is extremely impressive, since it amounts to nearly one fifth of the total estimated population of the whole United States. California was thus far and away the most densely occupied portion of the country.

To the student of the broader questions of the development of civilization in general, California presents a problem of large significance. Here was a great area blessed by Nature with most of her best gifts,—varied in topography, favored in climate, rich in sources of food supply and fertile in soil. Here, if anywhere in the world, if environment have the determining influence often attributed to it, we might expect to find man developing rapidly and continuously, and evolving a relatively high and complex civilization. Yet the reverse has been the case. In other parts of the world, in environments far less favorable, men achieved more in a century than the Indians of California accomplished in a thousand years. More and more, as we gain fuller knowledge of the beginnings and growth of civilization, does it become clear how enormously important has been a certain compulsion in the environment, together with the stimulus coming from the mingling of diverse cultural and racial strains. To the comparative absence of these factors in this secluded "Happy Valley," and a relative lack of vigor and inherent capacity in the people themselves, it would seem that the backwardness of the Californian area was in large part due.

Dr. Kroeber has carried out a difficult task with noteworthy skill and success. His Handbook provides us with a wholly admirable monograph on one of the great culture areas of the continent. One can only wish that for other areas, similarly comprehensive presentations were available. The mass of published material on the Plains or the Southwest, for example, is so great that few students can hope to get an adequate idea of the facts or of the manifold conclusions to which they lead. There are many and grievous gaps indeed in our knowledge, but surely the time is ripe for a summary of what we do know and its implications. In this, the first of such Handbooks, the author has set an extremely high standard—may it stimulate others to emulate his example!

R. B. DIXON

#### ASIA

*The Ao Naga tribe of Assam. A study in Ethnology and Sociology.*

WILLIAM CARLSON SMITH. London. Macmillan and Co. Ltd., 1925. xxvii, 244 pp.

Anthropologists owe a debt of gratitude to the Assam Government. Alone of all the various Indian governments, it has realized the importance and need of making (and *publishing*) careful and systematic studies of the various aboriginal tribes within its territory. The Government of India itself does nothing, and has done nothing except for the brief period many years ago during which the Ethnographic Survey began its valuable but unsystematic and unfinished gathering of physical data. The Assam Government has now added to its fine group of monographs, this volume on the Ao Naga and thus carries on the series begun by Hodson in 1911 on the Naga tribes of Manipur, and continued by Hutton's volumes on the Angami and Sema Naga and Mills's study of the Lhota.

The present volume was written by an American who is a trained sociologist, and while not so detailed as the forthcoming monograph by Mills, it will be valuable to the student for its point of view, and will provide him with an excellent account of this important tribe. Of particular significance is the chapter on the effects on aboriginal peoples of contact with higher cultures.

In Dr. Hutton's classification, the Ao belong to the Central Group of Naga tribes. They differ from the Western Group (to which the Angami, Sema and Lhota belong) in that they lack the "stone-pulling" and setting up of monoliths which form so striking an

element there. They have on the other hand a number of cultural factors which the Western tribes lack, such as the use of tatooing, large slit-drums, pile-dwellings and the exposure of the dead on platforms. Some elements, now at least weak or fallen into disuse among the Western Group, the Ao still retain, such as the special dormitories for unmarried men and girls.

Professor Smith devotes considerable space to a comparative study of the Ao and other Tibeto-Burman tribes, and also goes further afield to the Phillippines and Borneo, where he finds among the Indonesian tribes many close parallels to Naga culture. It may be pointed out that in considerable measure, these elements are also common to the Mon-Khmer tribes of Indo-China, and any such attempt at a comparative survey brings out the drying need for an adequate study of this region, about which we know so little. Not until such investigations have been made, can we hope to work out the origins of Indonesian or Oceanic cultures.

In his chapter dealing with the changes effected through contact with more advanced peoples, Professor Smith has done good service in pointing out how the breaking down of old customs and regulative controls, tends to take all the zest out of life, and to disrupt the whole moral and mental fibre of a people. He calls deserved attention to the harm done by well-intentioned missionary enterprises, in training aboriginal folk for a type of life impossible in their environment. He quotes Mills as saying "What greater folly than to offer a people culture, which if assimilated by all, would spell racial suicide?" It would be well if all intending missionaries could read this chapter and the similar studies by Rivers and Balfour.

R. B. DIXON

*Christian Missions and Oriental Civilization. A Study in Culture-Contact.* MAURICE T. PRICE, Ph.D. with a Foreword by Dr. ROBERT E. PARK. Shanghai, China, 1924.

This is a book of nearly 600 pages, including a bibliography of 15 pages, yet, according to the author, this is merely the first volume of a series he contemplates producing on the same subject. It, therefore, may be considered as an exhaustive study of the subject of the impinging of Christian missions and missionaries on Oriental nations,—China, India, and Japan. The discussion is conducted in the language of the sociologist and the psychologist, and there is little real meat in the book for the anthropologist. The phenomenon

of one religion with its associated culture traits meeting with another religion is of common occurrence and only the broad aspects in such cases have particular significance.

There are innumerable quotations from missionary organs and from native papers and magazines. The bibliography contains various works by native writers of China, India, and Japan. Without deprecating native writers as source material, it must be understood that when these native writers use English in dealing with matters pertaining to their own country, their main object is propaganda. Frequently such writers are merely reflecting views they have acquired under the training which gave them the language.

This is probably the first time the subject of missionaries has been treated in this manner, and the book might therefore be of considerable value to that body of people. It is questionable, however, whether the language used is likely to be completely intelligible to persons who have not had training in either sociology or psychology.

SARA M. SCHENCK

*Ivory in China.* BERTHOLD LAUFER. Field Museum of Natural History Anthropology Leaflet 21. Chicago, 1925.

This leaflet is divided into five chapters with the following heads: 1) The Elephant in China and Trade in Elephant Ivory; 2) Folk-lore of the Mammoth and Trade in Mammoth Ivory; 3) Trade in Walrus and Narwhal Ivory; 4) Ivory Substitutes; and 5) Objects Made of Ivory. The first three chapters occupy the greater part of the book and are of great value both historically and anthropologically.

Although found today only in the extreme southern part of the country, the author cites abundant historical and archeological evidence to prove the existence of the elephant on Chinese soil in ancient times. Elephant ivory was well known to the ancient Chinese and ranked in their esteem next to jade and gold. The use of mammoth ivory was also known to them and the interesting feature in this connection is that the folk-lore recorded by the Chinese regarding it closely resembles that of the Siberian tribes from whom it seems they obtained this ivory. Fossil ivory was found in China and used by them as well as received in trade from the Yakut and other northern tribes.

Long before it was known in Europe, narwhal ivory was a familiar article to the Chinese traders and craftsmen. Accounts of narwhal and walrus ivory in the chronicles of China and Japan are valuable

sources of knowledge concerning the far northern maritime tribes in remote times. Among other uses, the Su-shen, a fierce piratical people, probably made the walrus ivory into bone plate armor, or slat armor. Narwhal and walrus ivory is a subject which has received little attention, and so this chapter is one of those characteristic and highly valuable digressions we eagerly anticipate from this author. He runs the narwhal to earth in the four quarters of the world and everything from ancient Chinese documents through mediaeval European travellers' narratives down to United States Customs Reports is grist for his mill.

Since the Chinese always valued it so highly, ivory has been wrought by them into many kinds of articles. Thrones and chariots were made of it, insignia of rank and articles of adornment. During the Yuan dynasty 1260-1367 A.D. an official bureau for carving ivory was created. Buddhistic statuettes whose artists never signed their work are among the most beautiful and interesting of Chinese ivories existing today. Examples of objects in ivory from the earliest times to the present day are illustrated in ten excellent plates at the end of the book. They are selected from the collection made by the author on the Capt. Marshall Field Expedition to China in 1923.

SARA M. SCHENCK

*On the Cephalic Index and Stature of the Japanese and their Local Differences.* A. MATSUMURA. Journal of the Faculty of Science, Imperial University of Tokyo, Section V, Anthropology, Vol. I, part I, 1925. 312 pp.

This is an important treatise in the relatively neglected field of East Asiatic anthropometry. It is based on measurements of 6000 adult males and 2700 females. The mean values, standard deviations, and coefficients of variation are given for length and breadth of head, cephalic index, and stature of males and females respectively, for each province of Japan. Comparable data are assembled from the literature on East Asiatic and Indonesian peoples. The frequency distributions of each measurement are given according to province. Head length is correlated with head breadth and cephalic index with stature. A section on local differences follows. This includes diagrammatic representations of the degrees of relationship between various sub-groups of the Japanese people. Ten excellent maps by provinces are added.

Among the principal findings are: variability in head measurements is greatest in the southwest of Japan where culture contacts have been oldest and most direct. The Japanese are more variable than the Ainu and less variable than the Koreans in head measurements. For stature the variability is reversed. The mean values for stature and head form agree closely with those prevalent in eastern Siberia, Southern China, and Indo-China. During the last ten years Japanese stature has increased slowly. On the basis of cephalic index and stature jointly, the Japanese population is classifiable into nine local groups.

The work is scholarly, its English excellent, and the typography thoroughly satisfactory. The University of Tokyo is to be congratulated on its production.

A. L. KROEBER

*Ceylon Journal of Science. Section G.—Archaeology, Ethnology, Etc.*

Edited by A. M. HOCART, Archaeological Commissioner, Ceylon. Volume 1, part 2. October 1st, 1925. London; Dulau & Co., Ltd., 34, Margaret St., Cavendish Sq., W. 1. Ceylon; The Archaeological Commissioner. (Price Rs. 3-50.)

The second number of this new anthropological journal has made its appearance. The excellence of its typography and the fine series of half-tone plates and drawings make it a most pleasing number. The intrinsic interest of the subject matter appearing in this journal should insure for it a wide range of subscribers.

In the present number there are three articles by the archaeological commissioner of Ceylon, Captain A. M. Hocart. The first article is an "Archaeological Summary" of exploration in Ceylon. This is illustrated by thirty fine plates and maps and covers a wide range of archaeological features from chipped chert implements to cave temples.

The second article is one of great general interest to students of human culture, for it deals with India and the Pacific. The author, with characteristic acumen, traces to a pre-Vedic source the social organization of eastern Fiji. His knowledge of both ancient Indian literature and modern Oceanian culture gives him an unusual vantage ground from which to discern the connections between the geographically remote regions of Fiji and India.

"Money" is the title of the third article. Therein the author identifies the parent form of all money with the fee paid to the priest who conducts a sacrifice.

Not only is the Ceylon Journal of Science purchasable from Dulau and Company, but it may also be obtained by exchange. All communications should be addressed to the Archaeological Commissioner, Ceylon.

E. W. GIFFORD

## INDONESIA

*The Life after Death in Oceania and the Malay Archipelago.* ROSALIND MOSS. Oxford University Press, American Branch, New York. XII, 247 pp., 2 maps. (\$4.70).

The purpose of this latest contribution to comparative ethnology is the tracing of the connection between burial customs and beliefs in a future life among the more primitive peoples of Polynesia, Melanesia, and Indonesia. The close interplay between eschatological belief and practice has at all times occupied a great portion of the works and theories of the older generation of comparative ethnologists, such as Herbert Spencer, Julius Lippert, and Tylor; it is the purpose of the present writer to establish theories pertaining to her subject on a sounder basis by a more searching investigation of one special region.

Miss Moss has also taken into account the present-day reaction from the extreme evolutionary trend of the older comparative ethnologists and in her theory concerning, for example, a dual form of belief in an afterworld, has suggested a migration of a foreign element rather than an autogenetic evolution in belief. On the other hand, Miss Moss has never fallen under the sway of rabid proponents of the school of racial migrations. Her opinions remain modest and critical throughout. The theory advanced by Mr. Perry that the sky afterworld in Indonesia belongs to a set of immigrants bringing in, among other things, warfare, is disposed of by an exclamation mark; truly a befitting end for such a remarkable theory. Certain of the more reasonable but equally unfounded theories of the late Dr. Rivers are also neatly disproved. Thus, in regard to the theory that cremation in Oceania is associated with an immigration of megalithic builders who possessed, among other features, a cult of the sun and a belief in a sky afterworld, Miss Moss has shown that cremation is of extremely limited occurrence in Oceania and where it does occur the people are lacking in an original belief in the sky afterworld. Miss Moss then has fulfilled a promise made in her introduction; she has entered the field without preconceived opinion.



To the American anthropologists the theories advanced in the present volume associating vital differences of eschatological belief and practice with presumed racial migrations may seem forced, for in dealing with continental areas diffusion usually takes place unaccompanied by actual migrations of peoples. In island areas, however, I have found from my own experience in the field, vital changes of culture are usually associated with the migrations of people, especially small groups of more advanced immigrants.

A very few of the theories broached in the book may be touched upon. Miss Moss has developed a theory of the formation of the Oceanic afterworld into three stages:

(1) Where the original home of the race is still remembered, and the afterworld corresponds to the home island; hence burials by setting adrift in canoes.

(2) The afterworld is still a real island, but the idea of a return to the ancestral home tends to disappear. Ritual connected with the safe journey of the soul across the sea is emphasized.

(3) In the third, and Polynesian stage, both island and canoe have become mythical, and the true ancestral home becomes legendary, lying to the west and in the path of the setting sun. The meaning then of the still surviving canoe burials becomes obscure.

In contrast to this rather evolutionary doctrine Miss Moss agrees with Rivers that in certain islands of Polynesia the dual form of belief concerning the afterworld is due to a fusion of two races. The earlier, or Melanesian type, had the Melanesian form of afterworld which was entered through holes from a leaping off place and connected with volcanoes. This became the afterworld of the Polynesian commoners. Chiefs, on the other hand, went to Po, across or under the sea, a type of afterworld later introduced.

I may say in criticism of the book as a whole, although this is no fault of the author's, that some of the source material from which conclusions have been drawn, is probably faulty. I have no doubt that burial customs, as such, have been correctly observed in the region under consideration. I am more sceptical, however, in regard to eschatological beliefs. These are extremely difficult to obtain from natives and quickly alter upon contact with white civilization. To take the Polynesian island of Niue for an example, the information used by Miss Moss was mostly obtained from the writings of Sir Basil Thomson and Percy Smith, the former head of the Polynesian Society. Unfortunately both these men derived their own information on eschatological matters from the same resident missionary of Niue,

Mr. Lawes. The natives of Niue formerly believed that all of the dead went to the underworld, the home of the hero Maui. There was no conception of the "Bad" going to Maui and the "Good" going above to the second heaven, called the Island of Hina, or Aho-hololoa (eternal daylight). Hina (the Hawaiian moon goddess) according to old Niuean mythology lived in this pleasant place with her family, and I am quite certain would not have welcomed visitors. In another citation Miss Moss states that Niue commoners went to the underworld, while chiefs went to Po, or its equivalent, across or under the sea. These two statements of Miss Moss contradict each other. Besides, the word "Po" was introduced by Samoans proselytizing for Christianity. Chiefs and commoners went to the same underworld in Old Niue. The Niuean chiefs did not have the divinity of Polynesian chiefs in general. Burials in Niue were either in caves, or else the body was set adrift in a canoe. Warriors and chiefs were given private and secret caves, the bones of commoners were piled together in common caves or chasms. In certain cases bodies were thrown into the sea. Earth burial never occurred. With the coming of the Samoan teachers of Christianity earth burial became universal. A heathen custom was also introduced at this time, that of catching the soul of the dead in the form of an insect, and burying both the body and the insect together under a tree. This custom is mentioned by Miss Moss as occurring in both Niue and Samoa.

The work of Miss Moss would have been greatly improved if she had mapped out the distribution of certain of the more prominent features of burials and beliefs in her area. Maps of this nature aid not only the reader in absorbing material at a glance but also the writer in drawing conclusions on matters of distribution, correlation, and diffusion.

E. M. LOEB

## AFRICA

*Felsgravierungen der südafrikanischen Buschmänner auf Grund der von Dr. Emil Holub mitgebrachten Originale und Kopien.* J. V. ŽELÍZKO. 28 pp., 28 pls., of which 20 are in heliotype. Quarto. Leipzig, F. A. Brockhaus (1925).

Much has been written concerning the art of the Bushman and its possible relationship to the art of the Paleolithic period in western Europe. Želízko has profited by all this and especially by intimate contact with the late Dr. Emil Holub, one of the earliest and best-

known investigators of the subject in question. In fact his work is based largely on the collections brought back by Holub from his two expeditions to South Africa. These include originals chiseled from the rocks as well as copies.

The late Professor Felix von Luschan, who had given much thought to the problem of the Bushman petroglyphs, finally came to the conclusion that they were pre-Bushman. The author does not share this opinion. With Holub he believes that the petroglyphs belong to four different epochs recognizable also through differences in technique. He believes that the youngest of these four epochs came to an end only recently, perhaps not more than 100 years ago. It is also pointed out that representations of the human form are of the Bushman type.

Both author and publisher are to be congratulated on the fine quality of the plates, which transmit the essence of the originals to a remarkable degree. Two pages of bibliography make it possible for the student to become acquainted with the subject from the viewpoints of various authors and to draw his own conclusions as to the significance of the so-called Bushman art.

GEORGE GRANT MACCURDY

This work on Bushman art is based on Dr. Emil Holub's originals and copies brought to Vienna before 1902, forming a sufficient and the largest body of data comprising the corpus inscriptionum of these interesting natives. Mr. Želízko has classified the Bushman petroglyphs into 6 groups:

1. Antelopes and other game animals; 2, Fur clothing, beads, etc.; 3, Human figures; 4, Ostrich (70 per cent), snakes, spiders, insects; 5, Various objects, as weapons, sticks, trees, sun, etc.; 6, Entire groups, hunting and battle.

Incidentally, many of the animals depicted are not now found ranging in South Africa, indicating a more extended previous distribution of certain animals.

Mr. Želízko points out that like the paleolithic man of Central Europe, the Bushman depicted contemporary animals, frequently in action and always adequately conveying the artist's meaning, so that if the Bushman passed away we should still have a rather complete record of the life of these natives and of the fauna of the locality. Mr. Želízko has not beclouded the subject with surmises connecting the Bushman with prehistoric artists of Europe. On the contrary, he

shows that the Bushman has, beginning in a lower stage perhaps, done only what many tribes have done, leaving us examples of art preserved on stone and other materials. Mr. Želízko's work, which is a *Festschrift* or tribute to the great Czecho-slovak explorer, Holub, is splendidly brought out by Brockhaus. Especially valuable and complete is a bibliography on the subject of Bushman art.

W. HOUGH

### MISCELLANEOUS

*The Basque Dialect of Marquina.* WM. ROLLO. Amsterdam, 1925.

This book of a hundred odd pages is much more than a mere dialectical study, as one might be led to infer from the title. It amounts to nothing less than a grammar of the Basque language *as spoken* in Marquina, in other terms it represents the Guipuzcuan dialect. The author has spent several summers in Marquina, has established friendly contact with the people, and has evidently been careful to verify the literary language of the grammars in the *actual* speech of his peasants. This is a great merit. A great deal of the complexity of the Basque language as it appears in the grammars, is simply the result of bringing together not only all the dialectic variations actually spoken to-day in this or that part of the Basque provinces, but all the historical and literary forms from the time of Lizarraga to that of Larramendi. A strictly objective record of the actual speech of a certain locality, as we find it in this book, is therefore of great value.

In point of treatment we might wish that the author had gone even further than he has in abandoning the plan of the classical grammars. The Basque language would be much simpler if one did not try to force declensions, privatives, prolatives, "remote-conditional-futures" etc. into it. After all, Basque is a very simple language—except of course for the Indo-germanically oriented mind. All the fuss about the famous Basque verb (350 pages of conjugation in Ithurry's Grammar, for example) is simply due to a failure to recognize a general formula, which is very simple:

$$\pm \left[ \begin{array}{c} \text{Modal} \\ \text{prefix} \end{array} \right] + \text{Pronoun.} \pm \left[ \begin{array}{c} \text{Pronomin-} \\ \text{adjunct} \end{array} \right] \left[ \begin{array}{c} \text{Modif.} \\ \text{element} \end{array} \right] + \text{RADICAL} \pm \left[ \begin{array}{c} \text{plural} \\ \text{suffix} \end{array} \right] \pm \text{Pron.} + \left[ \begin{array}{c} \text{Temp.} \\ \text{suffix} \end{array} \right]$$

Every Basque verb fits into that.

The author has evidently realized one of the cardinal principles underlying the conception of the verb in Basque, a point, moreover, which seems to have escaped most grammarians:

It will be seen that what we call the object of a transitive verb is expressed in exactly the same way and in the same place as what we call the subject of an intransitive verb. It follows that a Basque feels no difference between these two, and hence it is likely that what we call the object of a transitive verb is for a Basque really the subject or, in other words, the Basque transitive verb is passive in character and the sentence quoted above (the man has seen the dog, *gisonak txakurre ikusi dau*) is really built up as follows:

gison -a	-k	txakurr	-e	ikusi d	-au
man	the by	dog	the	seen he	is had

i.e., the dog is had by the man seen. (p. 42)

At the end there are twenty-five pages of texts with translations, and another twenty-five pages of alphabetical vocabulary.

The book is well printed, in clear type, and apparently very free from errata. In the chapter devoted to the phonology the author makes use of the Alphabet of the International Phonetic Association, which has at least the very great merit of being pleasant to the eye. In the rest of the book the author very wisely follows the classical literary transcription of Basque.

JAIME DE ANGULO

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## DISCUSSION AND CORRESPONDENCE

### PSEUDO-CULTURE DIFFUSION ON THE NORTHWEST COAST

Recently there was sent to the National Museum for inspection and identification a plaster cast taken from a flat surface brickshape object of red sandstone. The artifact from which the cast was made was collected presumably in the old territory of the Makah Indians about Neah Bay and Cape Flattery. No further information as to its origin was obtainable.

The object measures six and one-half inches in length and has width and length dimensions of four and one-fourth inches each. On either of the surfaces except the base are flat carvings in low relief chiseled out of the solid. These carvings represent various animate objects. That on the top surface is a mythical figure representing the sea horse (*hippocampus*) while a carved figure on one of the lateral surfaces is a representation of a crab and on the other of a dragon. The carving at one end represents the cameo-like figure of a man's head capped with a scrolled headgear and surrounded with an arabesque design. The other end carving is a shield-like escutcheon on which appear markings such as might make up a medieval coat of arms.

The figure is at most problematical and at once raises doubt as to the authenticity of the carvings. Symbols of entirely too many culture areas are employed. The object is obviously the product of "nature faking." Unless, to be sure, we assume that culture diffusion on an extensive scale penetrated the northwest coast area at one time or other in the remote past. Anyone acquainted with the Mexican crab symbol might interpret the carved crab design on the object as indicating ancient culture diffusion from Mexico. It is known that the Spaniards attempted to make a settlement at Neah Bay in 1792. Or, again, the carved dragon figure might indicate Chinese or Japanese influence; stories are recalled of Japanese or Chinese junks cast on the American shore by the force of storms and ocean currents. Russian influence, too, might be considered as apparent in the man's face and head covering of the end carving. The heraldic shield making up the carving at the opposite end might also be suggested as Russian. There exists an old account of a Russian ship which was wrecked on the coast at Neah Bay and of the surviving members of the crew

living several years among the Makah. The theories just presented and many others as well have been offered in explanation of the carvings. Each line of culture diffusion thus indicated has found able defenders.

The carved figure on the top surface of the object is typically northwest coast in design and appears on many other objects both in the form of carvings and as paintings. The figure is that of a mythical sea monster resembling the sea horse (*hippocampus*). It is the symbol for the lightning fish, a mythical creature associated with the thunder-bird. This lightning fish (not found in natural histories) was used by the thunder-bird in successfully capturing the killerwhale (*orca aster*) and was formerly considered by the Makah as a powerful fetish. Such fetishes became desired objects supplying power and good luck to their possessor.

All this goes to explain the use of the brickshape stone object. It also serves to account for the design carved on the top surface. But it does not account for the surface carvings at the sides and on the ends. Mythological lore associated with the fetish and its symbolical meaning was either disregarded or lost so that as time went on and contacts with the whites became more numerous other carvings and figures were substituted. This had already occurred at the time of Judge Swan's sojourn among the Makah in the 'sixties of the preceding century, and he rather naively confessed himself ready to supply them with something new. In his book "The Indians of Cape Flattery," Washington, 1869, on page 9, he writes:

I have painted various devices for these Indians, and have decorated their ta-na-was masks; and in every instance I was simply required to paint something the Indians had never seen before. One Indian selected from a pictorial newspaper a cut of a Chinese dragon, and another chose a double-headed eagle, from a picture of an Austrian coat-of-arms. Both these I grouped with drawings of crabs, faces of men, and various devices, endeavoring to make the whole look like Indian work; and I was successful in giving the most entire satisfaction.

The temptation to associate cultures and to assume their former diffusion is always great. The danger of a hasty or particularistic explanation of culture symbols as indicative of Asiatic influence is particularly great at the present time. Many forced and biased theories regarding Northwest Coast art in particular and concerning Northwest cultures in general are being revived. It is hoped that the episode described will show how individuals may influence the

ethnology of a tribe and how culture borrowings may sometimes be erroneously implied.

H. W. KRIEGER

#### AMERICAN INDIAN POETRY

It is with special interest that I have read the able article on "American Indian Poetry" in a recent number of the *AMERICAN ANTHROPOLOGIST*. Each observer may see a different phase of a subject, and therefore I take the liberty of adding to the discussion of this paper.

The poetry of the Indians is closely associated with their music, which is my special study. The words of many songs fall naturally into the form of blank verse, a statement which has been made concerning some Chinese poetry. The words of other songs do not readily assume this form and are rendered best in English prose. I have transcribed about 1500 phonograph records of songs and make this as a general statement. A large majority of the songs had words which were usually translated "word by word," though in some instances a free translation was considered sufficient. The translations made by a carefully selected interpreter have an artistic element which is native and yet, in many songs, corresponds to our idea of true poetry.

The first point I would mention is that the simplest form of Indian poetry is found in the words of a short song. An example is the following song from the Makah Indians, sung to a baby boy:

My little son,  
You will put a whale harpoon and a sealing spear into  
your canoe,  
Not knowing what use you will make of them.

Among the Yuma I found the following delightful bit of poetry:

The water-bug is drawing the shadows of the evening  
toward him across the water.

The next example is from the Yaqui and constitutes the words of a deer dance song:

The bush is sitting under the tree and singing.

In each of the foregoing we see a reflection of the physical environment and the life of a particular tribe, the Makah being whale and seal catchers, the Yuma living beside the Colorado river, and the

Yaqui on the desert, where a bush and a tree are objects of interest and frequently associated with the presence of moisture.

Some of the finest songs of the Papago are connected with the treatment of the sick and are said to have been received, for that purpose, from spirits of the dead. Owl-Woman sang the following when she began a long night's singing beside a sick person:

Brown owls come here in the blue evening,  
They are hooting about,  
They are shaking their wings and hooting.

In the same series she sang:

How shall I begin my song in the blue night that is settling?  
I will sit here and begin my song.

Owl-Woman said that a spirit came to her and sang the next song. The interpreter hesitated over the word "rattling" as he thought "it did not make sense," but he said it was the exact meaning of the Papago word.

In the great night my heart will go out,  
Toward me the darkness comes rattling,  
In the great night my heart will go out.

The Sioux, during the Sun dance, sang a song in honor of Sitting-Crow which is a noble tribute to a warrior slain in the land of the enemy:

Sitting Crow,  
That is the way he wished to lie,  
He is lying as he desired.

In the following song of a Mandan war society we find reproof mingled with consolation in that even the eagle is at last defeated by an enemy mightier than himself.

Soldiers, you fled,  
Even the eagle dies.

The second point to be mentioned is a test of the rhythms of Indian song-poetry which I made several years ago. The words of a song are, of course, in the same rhythm as the melody and that is the meter in which the native words are heard by the Indians. I tried the experiment of writing English verse in the exact rhythm of the Indian song, using the words of the song as a basis and adding what I knew to be germane. The result was published in 1917 in a book

entitled *Poems from Sioux and Chippewa Songs*. As a result of the experiment I would express the opinion that the irregular rhythms of Indian songs are better adapted to the expression of Indian thought than the even meters of English verse, and better than the rhythms which suggest themselves to the mind of a white man. It also appears that the rhythm is closely associated with the idea of the song. Note, for instance, the abrupt change of accent in the following verse which is in the rhythm of a Chippewa song. The only words of the song were, "Still, I have lost my sweetheart."

I hear the birds before the day,  
I see the flowers beside my way.  
How can you sing, happy and free,  
How can you sing so close to me  
When I have lost my sweetheart?

A Sioux warrior, in time of danger, sang a song to his horse which opened with this galloping rhythm:

"My horse be swift in flight, even like a bird."

Defiance is well expressed in the following rhythm:

You cannot harm me,  
You cannot harm one who has dreamed a dream like mine,  
One who has seen the buffalo in their mighty lodge and  
    heard them say,  
"Arrows cannot harm you now,  
We will protect you,  
We will protect one who has been in the buffalo lodge,  
One who has seen us,  
One who has looked without fear upon our mysteries,  
Bid them shoot their arrows straight,  
Bid them shoot their arrows straight!"

The student of Indian poetry is frequently reminded of the fact that the Indian leaves a great deal unsaid. Probably this makes him a better poet, as the art of poetry lies in suggesting rather than expressing definite concepts. The Indian uses very few, if any, qualifying adjectives in the words of his songs. He sketches the thought and the poetic temperament of his hearers supplies the gradations of color. The Indian feels and expresses more in silence than the white man. Next to Silence comes Song, and in its rhythmic form, its beauty of thought, and its simplicity and delicacy of expression we find the True Indian.

FRANCES DENSMORE



A NEW CAVE SCHOOL OF ARCHAEOLOGY has been inaugurated in southwestern France by the department of Anthropology of Beloit College to provide field training for archaeologists. Working headquarters will be established in a prehistoric cave in the Bordeaux region where rich finds of material relative to early man have come to light, and where the students may learn by practical experience the technique of excavating, handling material, cataloguing and research to determine the age of specimens. The students will supplement this work by the study of the most important collections in Europe and will attend lectures by eminent French archaeologists. Financial backing for the scheme is promised by Dr. Frank G. Logan of Chicago, a trustee of the College and the donor of important archaeological collections to the Logan Museum there. Dean Collie has resigned his post in order to devote himself to laying the foundations of the new school. He will be aided by Alonzo Pond, a Beloit alumnus and student of European Archeology.—*The Museum News*.

A new fellowship has been established at the University Museum in Philadelphia, to be known as the George Leib Harrison Fellowship in Oriental Archaeology. It may be held by advanced students in Babylonian, Egyptian or Palestinian archaeology, and pays an annual stipend of \$1,500. The holder of the fellowship will be required to spend at least a part of his time abroad and at the discretion of the Museum, attached to one of its expeditions in Babylonia, Palestine or Egypt.

Properly qualified candidates may communicate with G. B. Gordon, director, University Museum, Philadelphia.

THE CATHOLIC ANTHROPOLOGICAL CONFERENCE, a council which seeks the promotion of ethnological training for candidates for missionary work, the stimulation of ethnological research and the publication of scientific information thus produced by missionaries in the field, has been founded by a meeting of delegates, from missionary orders, congregations and agencies, at the Catholic University, Washington, D. C.

THE QUARTERLY REVIEW OF BIOLOGY, the first issue of which appeared January, 1926., proposes to publish the results of recent studies in the several fields of Biology. The papers will present the current status of the various phases of Biology and will include papers on Anthropology. A paper of anthropological interest in the first

issue was *The Evolution of the Horse. A record and its interpretation*, by W. D. Mathew, of the American Museum of Natural History. The regular subscription price is \$4.00 a year. The journal is to be issued in January, April, July and October of each year. It is published by the Williams and Wilkins Company, Baltimore, Md.

THE WEST TEXAS HISTORICAL AND SCIENTIFIC SOCIETY was recently formed by citizens of western Texas for the purpose of preserving material of historical and scientific value from that part of the state. The Museum collection, to be housed in the Sul Ross State Teachers College, includes anthropological, biological and historical material.

THE OBLATES at Edmonton, Alberta, have on hand from sixty to eighty copies of the second volume of Baraga's Dictionary (Ojibwa-English) and will be glad to communicate with libraries or individuals wishing to secure them at a moderate price.

#### UNIVERSITY OF PARIS

The University of Paris announces the following courses under the auspices of the Institut d'Ethnologie for the academic year 1925-1926: Marcel Mauss, Descriptive Ethnography; Marcel Cohen, Descriptive Linguistics; Maurice Delafosse, African Linguistics and Ethnography; Jean Przyluski, Linguistics and Ethnography of Eastern Asia and Oceania. Among other courses offered by affiliated faculties of the University are the following: R. Verneau, Races in the French Colonies; M. Julien, Madagascar; M. Delafosse, French West Africa; M. Doutté, Social, Religious, and Family Organization of Moslem Peoples; M. Mauss, Australian Rites; Relations of Domestic and Social Organization and Religion (Sudan); Jean Przyluski, Indo-Chinese Religions; M. Fauconnet, General Sociology; Antoine Cobaton, Geography of Indo-China; History and Institutions of Indo-China and China; Jean Brunhes, The Problem of the Pacific. There are also linguistic courses in Arabic, Ethiopian, Berber, Sudanese, Modern Languages of India, Malagasy, Malay, Siamese, Annam and Cambodian.

The Institute of Ethnology to carry on work in the Colonies. The Institute is supported by the Colonial governments. Professor L. Levy-Bruhl of the University of Paris in the *Revue d'Ethnographie et des traditions Populaires*, 1925, Nos. 23-24, gives the scope of the plan and outlines the practical ends the Institute is expected to

attain for the benefit of those who live or expect to live in the Colonies. In brief these are: 1. to provide a course of education in ethnology and linguistics which will prepare administrators and others to carry on their work usefully; 2. to keep in touch with scientific workers by forwarding information of new discoveries and methods, and news of progress; 3. to publish works on ethnology which may be too large for the periodicals; and, 4. in cooperation with the governors of the colonies to send missions for the ethnographic study of the regions, these missions to be conducted by the qualified persons in the respective colonies.

Professor Levy-Bruhl adds that a bulletin containing bibliographic information, personal notes, and critiques will be sent periodically to the colonial administrators, thus keeping a close connection between those engaged in the work.

Practically, the Institute is to collect facts which will aid in smoothing the contacts between races. Most violent contacts are due to a lack of knowledge, as governing nations have at last learned by sad experience. As a whole the scientific study by the Institute is bound to have repercussions in all the branches of anthropology. The French Government is to be congratulated on its enlightened vision.

WALTER HOUGH

#### THE FIRST NORDIC RACE CONFERENCE

From the 25th to the 28th of August, representatives from Sweden, Norway, Denmark, Finland and Iceland met in Upsala and Stockholm to discuss race problems. The majority of the papers dealt with questions relating to the Northern Countries.

A Nordic Association for Anthropology (Nordisk Förening för Antropologi) was organized. Professor Lundborg, Director of the Swedish State Institute of Race-Biology, was asked to act as General Secretary to the Association.

Professor Fürst, of Lund, was president of the conference, and Divisional Surgeon H. Bryn, Trondhjem, and Professor G. Hannesson Reykjavik, acted as chairmen.

It was decided that the Second Nordic Race Conference would be held in Oslo in 1927.—*Eugenical News*

## ANTHROPOLOGICAL NOTES

W. E. SAFFORD, 1859-1926

On January 10, 1926, Dr. W. E. Safford, whose important contributions to ethno-botany are well known to anthropologists, passed on. Dr. Safford's interest in anthropology was initiated by his connection with the Smithsonian in 1882, when as an ensign of the Navy, graduating from the Naval Academy in 1880, he was detailed to the Institution for special instruction. Spencer F. Baird, Secretary of the Institution, desiring to increase the effectiveness of the new, procured from the Navy Department the temporary detail of a number of ensigns for training in science with the expectation that their interest would be aroused in finding material from the various quarters of the globe which they would visit. Notable among these men are Niblack, Bernadou, Bolles, who, with Safford, contributed much to the science of anthropology.

While Safford began his work in the division of marine invertebrates, he later became interested in anthropology. As commissioner to Peru and Bolivia for the Chicago Exposition in 1891 he made valuable collections of Indian material culture and became interested in ethno-botany, in which subjects his most important writings have appeared. His ability to combine into a close texture facts concerning the interrelation of man and plants, history, and pure science was remarkable, witness his most valuable work on the Useful Plants of Guam, S. I., 1905. This work is not only as its title indicates, but is a compendium of Guam in which the reader is delighted to find all necessary facts concerning the island.

Safford's charming personality went into all his numerous scientific publications, which are models of the best efforts in popularization.

WALTER HOUGH

### AMERICAN SCHOOL OF PREHISTORIC RESEARCH

The American School of Prehistoric Research, of which Professor George Grant MacCurdy of Yale University is Director, was incorporated recently under the laws of the District of Columbia. Its By-Laws provide that the Archaeological Institute of America, the American Anthropological Association, and Section H, Anthropology

of the American Association for the Advancement of Science shall be represented on its Board of Trustees.

The purpose of the School is to train students, to assist them, as well as other investigators, in the prosecution of their work in the field of prehistoric research, and to enrich museums, both in America and in the lands where researches are conducted, with the material results of exploration. The Board of Trustees is authorized to maintain fellowships, instructorships, instruction and research stations, publications, as well as to raise funds for the support of the same and for the endowment of the School; it collaborates with universities and other scientific organizations both at home and abroad in the advancement of our knowledge of man's cultural and physical evolution.

During the five years of the School's existence, forty-two students have been enrolled, some on full time and others on part time. The students have come from thirteen states (Colorado, Connecticut, Georgia, Illinois, Massachusetts, Michigan, Missouri, New York, Ohio, Oregon, Pennsylvania, Tennessee, and Wisconsin), the District of Columbia, and three foreign countries (Australia, England, and Mexico).

The program is so arranged as to combine lectures and work in museums with excursions and actual experience in excavating. In addition to the lectures by the Director, conferences will be given on special topics by a number of distinguished foreign specialists.

The Director represented the Smithsonian Institution and Yale University as well as the School at the Archaeological Congress in Syria and Palestine, April 2nd to 23rd.

The sixth summer term of the American School of Prehistoric Research was open in London on June 25, 1926. In the course of the summer work will be carried on in France, Spain, Switzerland, and Belgium, including actual experience in digging at a number of sites in these various countries.

The three-months summer term of 1925 was so arranged as to give students actual contact with every phase of prehistoric culture from Eolithic through Paleolithic, Neolithic, Bronze and Iron. Approximately one-third of the time was spent in excavating at various sites. Seventy-seven sites in all were inspected, and studies of special collections were carried on in forty-four museums. Of the eighty-eight conferences arranged, thirty were given by the Director and fifty-eight by forty-two different European specialists.

The American School of Prehistoric Research is the only organization claiming the Old World as its field of activity and is sponsored by the Archaeological Institute of American and the American Anthropological Association.

For full information address Dr. Aleš Hrdlička, U. S. National Museum, Washington, D. C.

#### MEETING OF THE CENTRAL SECTION

The annual meeting of the American Anthropological Association, Central Section, which took place at the Illinois State Museum on April 24 and 25, was one of the best ever held by the Association. Among those present were officers of the State and other museums at Madison, Milwaukee and Beloit, Wisconsin, Chicago (three museums) and Springfield, Ill., Iowa City and Davenport, Iowa, and Columbus, Ohio.

Balloting resulted in the election of Charles E. Brown, Madison, Wis., as president of the section, Charles R. Keyes, Mt. Vernon, Iowa, and Fay Cooper-Cole, Chicago, as vice-presidents. George R. Fox, Three Oaks, Mich., was re-elected secretary-treasurer. An executive committee was elected consisting of H. C. Shetrone, Columbus, S. A. Barrett, Milwaukee, and Berthold Laufer, Chicago.

The program included addresses by A. R. Crook, chief, The Illinois State Museum, W. C. Mills, director, Ohio State Museum, Berthold Laufer, curator department of anthropology, Field Museum; reports on the archaeological surveys in the Central States by Dr. Mills for Ohio, Dr. Keyes for Iowa, Prof. Brown for Wisconsin, and George R. Fox for Michigan; and the following papers:

*The Matriarchate in Central Sumatra*, Fay Cooper-Cole, University of Chicago.

*The Aurignacian Necklace at Beloit College*, Alonzo W. Pond, Beloit, Wis.

*The Magdalenian Carvings on Stone at Beloit College*, Alonzo W. Pond.

*Occurrence of Patency of the Foramen Ovale Cordis in Different Races and Peoples*.

Edward Miloslavich, Marquette School of Medicine, Milwaukee.

*The Niven Tablets of Azcapotzalco*, George R. Fox, director The Edward K. Warren Foundation, Three Oaks, Mich.

*The Domestication of the Cock*, Berthold Laufer, Field Museum.

*The Origin of the Pawnee Human Sacrifice to the Morning Star*, Ralph Linton, Field Museum.

THE EXPEDITION headed by Professor Mathew W. Stirling, of Berkeley, Cal., arrived at Sourabaya, Dutch East Indies, on the steamship *Fomalhout*, on April 9. The airplane of the expedition was placed aboard and the ship has left for Macassar, Celebes. The

party will explore the unknown parts of Dutch New Guinea, particularly in an endeavor to find traces of pygmy tribes.

THE HUXLEY MEMORIAL MEDAL of the Royal Anthropological Institute of Great Britain has been conferred for the year 1927 upon Dr. Aleš Hrdlička, curator of the division of physical anthropology in the U. S. National Museum. Dr. Hrdlička will go to London in November, 1927, to deliver the Huxley lecture before the institute and receive the medal.

HAROLD PEAKE has been elected president of the Royal Anthropological Institute of Great Britain and Ireland.—*Science*

THE RIVERS MEMORIAL MEDAL for anthropological work in the field for 1925 has been awarded by the council of the Royal Anthropological Institute to Professor C. G. Seligman for work in New Guinea, Ceylon and the Sudan.

DR. WILLIAM TUFTS BRIGHAM, formerly director of the Bernice Pauahi Bishop Museum of Polynesian ethnology and natural history, died in Honolulu on January 29 following a paralytic stroke. He was eighty-four years old.

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## THE ORIGIN OF THE SKIDI PAWNEE SACRIFICE TO THE MORNING STAR

BY RALPH LINTON

THE Skidi Pawnee sacrifice of a captive girl to the Morning Star has probably aroused more popular interest than any other purely tribal Indian ceremony except the Hopi Snake dance. It has been described a number of times (Bibliography, 1, 2, 3, 4, 5) and it seems unnecessary to do more than summarize its most important features here. The sacrifice was performed only in years when Mars was morning star and usually originated in a dream in which the Morning Star appeared to some man and directed him to capture a suitable victim. The dreamer went to the keeper of the Morning Star bundle and received from him the warrior's costume kept in it. He then set out, accompanied by volunteers, and made a night attack upon an enemy village. As soon as a girl of suitable age was captured the attack ceased and the war party returned. The girl was dedicated to the Morning Star at the moment of her capture and was given into the care of the leader of the party who, on its return, turned her over to the chief of the Morning Star village. During the time preceding the sacrifice she was treated with kindness and respect, but it was forbidden to give her any article of clothing. Only the leader of the war party and the chief of the Morning Star village could touch her after her dedication. A man who broke this rule was thought to have offered himself in her place and if he died before the time of the sacrifice she would be released.

The ceremonies preceding the sacrifice occupied four days, the victim being killed on the morning of the fifth. The rites performed during the first three days are not fully known, but apparently



consisted in the singing of songs relating the exploits of the Morning Star and in the offering of smoke and dried meat to the Morning Star bundle. At the beginning of the ceremony the girl was purified with smoke, painted red, and dressed in a black costume which was kept in the Morning Star bundle between sacrifices. Her captor was also dressed in a costume from this bundle and throughout the ceremony the two seem to have personified respectively the Evening and Morning Stars. A fire of four logs laid with their points together and their ends extending toward the four directions was kept burning during the four days. About sunset of the fourth day the spectators were excluded from the lodge while the officiating priest drew four circles on the floor, one for each of the four world quarters. They were then readmitted and the priests sang a song descriptive of the journey of the Morning Star in search of the Evening Star while one of the priests danced about the lodge with a war club and obliterated the circles. The priests then began to sing a long series of songs believed to have been given by the Evening Star. As each song was finished a tally stick, taken from a bunch kept in the Morning Star bundle, was laid down, Dr. G. A. Dorsey (6) concludes that the idea underlying this part of the ritual was that the girl at first belonged to the world of human affairs but that, as each song was sung, she became farther removed from it until, when the last tally was laid down, she had been won from the people like a stake in a game and belonged to the supernatural powers. When the songs were finished, one of the priests undressed the girl, painted the right half of her body red and the left half black, and redressed her. The whole assembly then set out for the place of sacrifice. At the place of sacrifice a scaffold had been erected on the afternoon of the fourth day, the selection of the site, cutting of the timber for the scaffold, etc., being attended by special ceremonies. The scaffold consisted of two uprights and five cross-pieces, four below and one above. The two uprights symbolized night and day, the four lower bars the four directions, and the upper bar the sky. Below the scaffold was a pit lined with white feathers which symbolized the Evening Star's garden in the west, the source of all animal and plant life.

Two men led the girl from the lodge to the scaffold by thongs fastened around her wrists. She was kept in ignorance of her fate as long as possible and it was thought an especially good omen if she mounted the scaffold willingly. The men leading her removed her clothing and tied her hands to the upper bar and her feet to the highest of the four lower bars. The procession was timed so that she would be left alone on the scaffold at the moment the Morning Star rose. When the Morning Star appeared, two men came from the east with flaming brands and touched her lightly in the arm pits and groins. Four other men then touched her with war clubs. The man who had captured her then ran forward with the bow from the Skull bundle and a sacred arrow and shot her through the heart while another man struck her on the head with the war club from the Morning Star bundle. The officiating priest then opened her breast with a flint knife and smeared his face with the blood while her captor caught the falling blood on dried meat. All the male members of the tribe then pressed forward and shot arrows into the body. They then circled the scaffold four times and dispersed. The priests remained. One of them pulled out the arrows and laid them in four piles about the scaffold. The body was taken down and laid on the ground with the head to the east, and the blood-soaked meat was burned under the scaffold as an offering to all the gods. Finally, songs were sung describing the eating of the body by various animals and its final turning into earth. Dorsey (4, p. 67) says:

"There is reason to believe that an abbreviated form of the ceremony was held each winter in December, at which time the ritual only was sung and the smoke offering performed."

Wissler and Spinden (7) have pointed out that the Morning Star sacrifice had a number of features in common with the human sacrifices of the Aztec and suggest that its presence among the Pawnee may be due to diffusion from Mexico. The principal resemblances to the Mexican practices lie in the association of the sacrifice with a worship of the heavenly bodies, the impersonation of a deity by the victim, and in parts of the actual procedure.

An analysis of the Pawnee ceremony shows that although some of its features were probably of foreign origin its underlying

concepts and most of its ritual were in perfect accord with the general body of Skidi beliefs and practices. The Pawnee recognized a great number of both heavenly and earthly beings. The attributes and powers of these beings were more clearly defined than was usually the case among the Plains tribes and the most important of them deserve to be classed as gods. The earthly beings were primarily the guardians of the medicine-men while the heavenly beings were the guardians of the whole people and the rivers of most of the village and tribal sacred bundles. Nearly all the heavenly beings were identified with stars. Although our data on the other Caddoan tribes are rather scanty, stars figure largely in the mythology of all those for which we have information and it seems probable that a worship of the heavenly bodies was common to all the peoples of this stock. It was such a basic feature of Pawnee religion that if its presence was due to diffusion from Mexico this diffusion must have occurred at a very ancient time.

The impersonation of a deity by the victim in the Morning Star ceremony is suggestive of one of the Mexican practices, but the resemblance is not very close. In the Mexican rites cited by Wissler and Spinden (7, p. 54) the victims were sacrificed to the deities whom they had impersonated. In the Pawnee rite there was a double impersonation, the captor taking the part of the Morning Star and the girl of the Evening Star. The victim was not offered to the deity whom she had impersonated but to another being who had conquered that deity. Impersonations of deities occurred in other Pawnee ceremonies as well. Dorsey (6) says:

"A man who has offered seven eagles to the heavenly deities may furnish a robe and other accessories used in a certain ceremony when one of the greatest of the heavenly beings, Paruxti, becomes represented in the bundles. He then becomes the earthly representative of that deity for the season. During all this season he neither cuts his hair nor his nails; he wears only a buffalo robe; in short, conducts himself as Paruxti did when he visited the earth."

The Morning Star ceremony was plainly a re-enactment of the conquest of the Evening Star by the Morning Star and, as such, was quite in agreement with the general pattern of Skidi ceremonies. Dorsey (op. cit.) says:

"In theory the Skidi Pawnee ceremonies all have as their object the performance either through drama or through ritual of the acts which were performed in the mythologic age. The ritual is a formal method of restating the acts of the supernatural beings in early times, and by this recitation of a ritual the deities of the heavens have their attention redirected toward the people on the one hand; on the other hand, people are reminded of the deeds which were done for them by the heavenly beings. The relationship between man and the supernatural world is renewed with the result that the supernatural beings, being pleased at the attention, which is usually in the form of sacrificial rites, bestowed upon them continue their protection over the people."

The idea of sacrifice entered into practically all the Pawnee bundle ceremonies and the offering of sacrifices to the heavenly beings was one of the surest roads to the spiritual and social advancement of an individual. Dorsey (op. cit.) says:

"The Morning Star told the people that he gave them bows and arrows with which to kill animals, telling them to get on the right side to shoot so that the arrow would go through the heart. As he had given them fire sticks the animal should be placed on the fire so that the smoke might ascend to the beings in the heavens. In these sacrifices by fire the blaze and smoke carry the prayers to the above, thus the smoke is the prayer bearer. This form of sacrifice was graded, the value ranging all the way from the sacrifice of the first bird shot by a boy with a toy bow to the sacrifice of a human maiden to the Morning Star. When about to make such a sacrifice to the heavens, it was customary before using the bow, the instrument of death, to pronounce the name of the Morning Star. This pronounced upon an animal or human being is the dooming to death, or it may be compared to a curse. Apart from the human being who was sacrificed to the Morning Star certain animals were especially sought after for sacrifice. These were various birds, culminating in the eagles, except the white eagle, which was never sacrificed, and certain animals such as the deer, antelope, wild-cat, otter and buffalo, culminating in the sacrifice of a human scalp or human maiden."

It is plain that no foreign origin need be sought for such features of the Morning Star ceremony as its association with a star cult, the impersonation of a deity by the victim, or the underlying idea of sacrifice. The killing of the victim with a single arrow through the heart was also in accordance with the tribal pattern, for animal victims were supposed to be killed in this way. There are, however, other features of the ceremony which seem at variance with the pattern. Thus, although human sacrifice was only the highest of a long series of graded offerings among the Skidi, there is no proof of its existence, except in the form of scalp

sacrifice, among any of the other Pawnee. Animal offerings were brought in dead and offered through fire. The human sacrifice had to be taken alive and was not burned. Moreover, the use of a scaffold, the touching of the living victim with flaming brands and clubs, the opening of the thoracic cavity and offering of blood, and the final shooting with arrows by all the men present, find no parallel in the other tribal ceremonies.

It has often been stated that human sacrifices were rare among the Indians north of Mexico, but this seems to be true only in the sense that they were infrequent. There are recorded instances of the practice among many tribes and over a very wide area. Sacrifices on the death of chiefs are recorded from the Natchez and Taensa (8, pp. 139, 266-7) and at the burning of the Taensa temple (op. cit., p. 266). The Yuchi sacrificed captives to the sun on the second day of the Annual Town Ceremony, burning them at high noon at a stake in the southeast corner of the town square (9, p. 85). Human sacrifices are also recorded among the Iroquois and Nipissing (10, p. 404) and among the Cheyenne at the time of the Sun Dance (11, p. 469). The formality, amounting almost to a ritual, which attended the torture of prisoners among most of the eastern tribes strongly suggests that the original idea underlying this practice was also a sacrificial one, and in view of the distribution of the recorded sacrifices it seems probable that human offerings were made at one time or another by most of the tribes of the Eastern Woodlands. Human sacrifice was also present in the Southwest and may have been important there in ancient times. Bourke (12, p. 196) says:

"In my journal of November 1881, made at Zuñi, are the following jottings of a conversation with the old chief, Pedro Pino, who possessed a very complete knowledge of Spanish: 'In the days of long ago all the Pueblos, Moquis, Zunis, Acoma, Laguna, Jemez, and others, had the religion of human sacrifice at the feast of fire, when the days are shortest. The victim had his throat cut and his breast opened, and his heart taken out by one of the Cochinos (priests); that was their 'oficio' (religion), their method of asking good fortune.'"

There are a number of features of Skidi culture which seem to indicate contact with the Southeastern and Southwestern areas, and as human sacrifice was present in both these regions it is unnecessary to seek farther for the source of the idea.

The use of a scaffold and the touching of the living victim with brands and clubs are clearly related to the method of prisoner torture in vogue among the tribes of the lower Mississippi Valley. Du Pratz (8, pp. 131-2) says of the Natchez:

On arriving near their nation they (a returning war party) make the war cry three times repeated and . . . go at once to hunt for the three poles which are necessary for the construction of the fatal instrument on which they are going to make the enemy they have taken die. I mean the frame (cadre) on which they cruelly immolate the unfortunate victim of their vengeance (Pl. 3, b).

Of these three poles, which are about ten feet long, two are set in the earth. They are straight and a good pace apart from each other. . . . The third is cut in halves in order to cross the two that are already planted. The first is two feet above the earth and the other five feet above the first. These poles are thus adjusted and bound together as strongly as possible. . . . The natives tie the victim to the foot of the frame, and when he is there he sings the death song until his scalp is taken. After the warriors have thus tied him they are permitted to go to eat. The victim, if he so desires, may then take his last meal. The old warriors guard him. Each one can look at him, but he is not allowed to speak to him, still less to insult him.

When the warriors have finished their meal they come to the place where . . . the victim is tied. They make him advance a little and turn his entire body around in order that the people may see him. The one who has taken him gives a blow of his wooden war club below the back part of his head, making the death cry. Having thus stunned him he cuts the skin around his head . . . and makes the death cry while removing the scalp in the best manner he is able without tearing it.

After the scalp has been taken from the victim, they tie a cord to each of his wrists, throw the ends of the cords over the upper cross-piece, which many take and draw in order to pull him up while others lift him, placing his feet on the cross-piece below and tying them to the corners of the square. They do the same to his hands at the upper corners in such a manner that . . . the four links form a sort of St. Andrew's cross.

From the time that they begin to take the scalp the young people go in search of dry canes, crush them, and make packages or bundles. . . . The one who took him is the first one to take a single crushed cane and burn the place he may choose. But he devotes himself especially to burning the arm with which he (the prisoner) had best defended himself. Another comes and burns another place. . . . All in fact, one after the other, revenge themselves on this victim. . . . Usage decides and governs everything.

The method of torture just described agrees with the procedure of the Skidi sacrifice in so many details that it seems highly probable that the scaffold and touching features of the latter were due to diffusion from the lower Mississippi valley. The shooting with arrows may also be referable to that region,

although its source is less clear. An execution with arrows on a scaffold seems to be represented on a shell gorget from Missouri (13, p. 412) but I have been unable to find any record of the practice among the historic tribes. The nearest approach to it was among the eastern Dakota of whom Perrot says (14, p. 169):

The usual torture which they inflict upon those whom they doom to death is to fasten them to trees or stakes and let their boys shoot arrows at them.

In the Skidi ceremony the shooting, aside from the first arrow through the heart, did not take place until after the victim's breast had been opened and seems to have been intended merely as a sign of participation in the sacrifice by all the men present. The opening of the victim's breast and the offering of the blood agree so closely with the Pueblo method of sacrifice as described by Bourke (*op. cit.*) that it seems certain that this feature of the ceremony was due to diffusion from the Southwest.

It is evident that all the elements which enter into the Morning Star sacrifice, with the possible exception of the shooting with arrows, either are in accord with the tribal ceremonial pattern or can readily be explained by diffusion from neighboring areas. It seems very unlikely, therefore, that the Skidi received the rite directly from Mexico. At the same time, it can hardly be doubted that many of its features are really of Mexican origin.

A study of Mexican influence upon the cultures within the United States is beyond the scope of the present paper, but a superficial examination seems to show that both the Southeast and Southwest have been affected by the higher civilizations to the south. In the lower Mississippi Valley there were temples on pyramidal mounds, a rather well developed cult of the heavenly bodies, scaffold torture (possibly as a development of scaffold sacrifice), and a number of pottery forms and art motives which are strongly reminiscent of the Mexican coast cultures, especially Huastec. In the Southwest we have stone construction, impersonation of deities by elaborately masked and costumed dancers, cardiac sacrifice, cotton and the true loom, mosaic jewelry, a maize complex closely patterned on that of Mexico, etc. Nearly all the specialized Mexican traits which are present in the Southeast

are lacking in the Southwest and vice versa. I think that this fact can only be explained by the assumption that there were two centers of diffusion within Mexico one of which influenced the Southeast and the other the Southwest. One center was probably in the highlands and the other on the east coast. To judge from the traits which spread northward from them, the cultures of these two centers must have differed considerably.

The star cult and scaffold features of the Skidi rite probably originated in the coastal center and reached the Pawnee by way of the Mississippi valley. The deity impersonation and cardiac features, on the other hand, probably originated in the highland center and reached the Pawnee by way of the Southwest. There is no record of the use of the scaffold in the Southwest or of the cardiac sacrifice in the Southeast, unless we include under that head the occasional offering of the hearts of slain enemies through fire. The Aztec do not seem to have adopted the scaffold sacrifice until 1506 and probably borrowed it from some other tribe in southern Mexico (7, p. 51). It is doubtful whether they really combined it with the cardiac sacrifice, for none of the instances cited by Wissler and Spinden (*op. cit.*) indicate that the scaffold victim's breast was opened. The similarity of the historic Aztec and Skidi rites seems to have been due to the fact that the same traits had been combined in much the same way in these two widely separated areas. The traits themselves probably had the same origin in both cases, but their combination was, in each instance, an independent local development. There is no reason to suppose that either of the rites, as a whole, owed anything to the other.

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FIELD MUSEUM OF NATURAL HISTORY,  
CHICAGO.

## THE CREATOR CONCEPT AMONG THE INDIANS OF NORTH CENTRAL CALIFORNIA

BY EDWIN M. LOEB

THE three Pomo creation myths contained in this paper are part of the material collected in the winter of 1924-25 while the writer was investigating the religion and mythology of the Pomo Indians. The trip was conducted under the auspices of the Department of Anthropology of the University of California through the generosity of the Guggenheim Brothers, of New York City.

While these three myths were obtained from the same linguistic group, and deal in a general way with the same incidents and characters, yet they differ so essentially in spirit and philosophy that a summary of their cultural setting cannot well be avoided. In doing this, the author has drawn mainly from the published and manuscript works of Dr. A. L. Kroeber.

The mythology of the California Indians is bound up in great part with their religious practices. Hence it will be well at the start to eliminate as far as possible two extraneous cultural regions. One of these divergent culture areas comprises the extreme north-western corner of the state, in the drainage of the lower Klamath and about Humboldt Bay. This region has been termed North-western California, and it constitutes a subdivision of the North Pacific Coast culture area. In this region the dances are not given by a secret organization, nor does any organization of this nature possess mythology of an esoteric nature. The conception of a single supreme or original creator is totally wanting among the tribes of this area.<sup>1</sup> On the other hand, the story of the so-called "Culture Hero" or transformer is widely prevalent throughout the Northwest. This hero is supposed to have given the world its present shape, to have killed monsters who infested the land, and to have given to men their arts and institutions. Among the Modoc, Kumush (Old Man) is the culture hero. Curtin believes that this hero has many of the attributes of Zeus, and that many of the

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<sup>1</sup> A. L. Kroeber. Wishosk Myths. *Journal American Folk Lore*. Vol. xvii, p. 89.

myths concerning this character are as sacred to Indians as Bible stories are to Christians,<sup>2</sup> yet Kumush is far from an ideal character in the very stories which Curtin has collected. Boas, with a far wider knowledge of a similar region, writes:

In the Northwest, the being who gave the world its present shape, and man his arts, was not prompted by altruistic motives. He did so in the course of his personal adventures, often with the direct aim of harming his enemies. . . . He combines in one person the benevolent being and the trickster.<sup>3</sup>

Another region to be eliminated from the discussion is that of Southern California. This area extends from the Tehachapi Pass and the mountains in the interior, and from Point Conception on the coast, southward to the Mexican boundary. While the tribes of this locality may be separated into two groups—those of the islands, coast and mountains, and those of the Colorado River, and into two religions, the Jimsonweed cult and the dream singing—yet the two religions have one factor in common, the lack of a true esoteric society. Religious experience in both cases is an individual matter. The Jimsonweed cult exists solely for the initiation, rather than the initiation for the cult, and membership is open to all of the tribe.<sup>4</sup> The mythology of Southern California is not native to the state, but is evidently a borrowing from the Pueblo region, an area of high development of secret societies and priesthood organization. Under these circumstances it is not surprising to find creation stories here, with a well developed system of dualism.<sup>5</sup> Better known is the universal story of development from Father Heaven and Mother Earth, and the coming of the culture hero, the “Dying God.” Throughout, we encounter typically non-Californian migration stories.<sup>6</sup>

<sup>2</sup> J. Curtin. *Myths of the Modocs*. Boston, 1912. p. 382.

<sup>3</sup> Introduction to James Teit. Thompson River Indian Traditions. *Memoirs of American Folk Lore Society*. 1898. p. 6.

<sup>4</sup> “The initiation was into manhood and tribal status, rather than to membership in any organization. It was therefore, in a sense, a boy’s puberty ceremony, which was given a distinctive character by intoxication.” A. L. Kroeber. *Handbook of the California Indians*. p. 502.

<sup>5</sup> E. W. Gifford. Clans and Moieties in Southern California. *University of California Publications*. Vol. 14, No. 2, p. 182.

<sup>6</sup> A. L. Kroeber. Two myths of the Mission Indians. *Journal American Folk Lore*, Vol. XIX, p. 310.

Central California, an area which covers two-thirds of the state, is alone typical in its development of an indigenous culture. We may, for the sake of convenience, divide this region into two areas: that lying north of the latitude of San Francisco, and that lying south of the latitude of San Francisco. The first area is North Central California, and the second South Central California.

North Central California has for its typical religion the Kuksu Cult.<sup>7</sup> This cult was probably in its original form merely an association of shamans, with initiations for the purpose of instruction in the shamanistic arts, and god impersonations for the sole purpose of curing. Later, the society commenced giving four day cycles of esoteric dances with increasing complexity of god impersonations, and the original shamanistic ideas became almost extinguished in ceremonial display. In the meantime the original shamans developed into a hierarchy of priests, having a secret language, mythology, and system of crude astronomical knowledge. The head priest now had sole charge of the sacred dances. Curing was almost entirely delegated to non-initiated members of the tribe.

In South Central California, with the exception of the Miwok, the Kuksu religion was absent. In its place there existed the Jimson weed cult, a probable importation from the island region of southern California. Here there was no true esoteric society, shamanism was individualistic, and no priesthood developed.

It will be well now to turn to the mythology of the two regions in order to determine the influence that the different religions have played on the mythopœic faculties of the tribes.

Kroeber summarizes the resemblances of the two systems of mythology as follows:

The possession of creation myths; the uniform antithesis, to a greater or less degree, of Coyote and the chief creator in these creation myths; the

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<sup>7</sup> The Kuksu religion is named by anthropologists from its principal deity, Kuksu, "the first man," and a powerful shaman.

In this paragraph I have summarized a portion of my unpublished material on the Pomo religion. This substantiates, to a remarkable degree, the theories advanced on the Kuksu religion by Dr. Kroeber in his general book on anthropology. P. 306 ff.

presence of numerous Coyote trickster stories; a considerable range of animal characters; certain ideas, also commonly held by the Indians of a large part of America, especially of the flood or primeval waters, the theft of fire, and the origin of death—Coyote usually appearing in connection with the last two; and certain ideas of similar type which are more nearly confined to California, such as the origin of the human hand from the lizard in opposition to Coyote.

. . . The following differences appear between the northern and southern halves of this central region. In the south there are no developed or extensive creation myths. Also, there is scarcely a full creator. The eagle, who is most nearly such, is really only the chief among a number of equals. The mere fact that the creators are several, and that they are animals, must tend to minimize their distinctly creative qualities.<sup>8</sup>

I will add two more points of dissimilarity. In the south we find a lack of coherence in the creation stories, and a considerable admixture of obscenity. In the north these stories, when correctly told, are coherent and lack obscene incidents. Finally, the idea of actual creation, in the sense of a projection into objective existence of a world that preexisted in the mind of a creator, is found alone in the northern section.<sup>9</sup> In the south we find creation by a process of transformation, working on a pre-existing object, such as turning sticks into men.

The difference, then, between the mythology of the two regions lies chiefly in the character of the creation stories, and this difference is due not to a wide divergence in the material that goes to make up these stories, but rather to the philosophical and complex manner in which the creation stories of the north are compiled from common mythical material to be found in both sections. This compilation may be compared to the work of a modern master composer of music weaving together a symphony from the folk songs of his country.

In the north, then, we have secret societies, a priesthood, and elaborate creation myths; in the south no secret societies, no priesthood, and only rudimentary creation myths. The connection between priesthood and elaboration of mythology is apparent, and,

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<sup>8</sup> A. L. Kroeber. *Indian Myths of South Central California*. *University of California Publications*, vol. 4, no. 4., p. 196-197.

<sup>9</sup> For an example of a myth of this nature, see myth No. 3 of this collection.

in fact, has already been pointed out by Boas.<sup>10</sup> The conception of an ætiological god, or gods, who created man and the world, is so simple that it is to be found not only in central California, but among most other primitive peoples. What is not so simple, and not so obvious, is the elaboration of the creation theme, giving to it a philosophical and even ethical tone, and cleansing from it all burlesque incident. When this has been done we have not the exoteric myth of a whole people, but the esoteric myth of a small group; and as this myth has been handed down from father to son, or uncle to maternal nephew, it has been brooded over and additions superimposed from generation to generation. The myth now becomes sacred, and as such is sharply distinguished from the profane myths of the common people. A cycle of these sacred myths accounts not only for the creation of the world and man, but may also give sanction to the ritual and social stratification of the tribe; they become, in fact, the backbone of the religion of the people.

Taking now the individual tribes under consideration in which the Kuksu religion has been found, we find the greatest development of the cult to have centered in the southern Wintun, or Patwin. The cult has also been described among the surrounding Pomo, Miwok, Maidu, and Yuki peoples. So far as known, the correlation between the Kuksu cult and the elaboration of the mythology is perfect, excepting that the northern Wintun had a highly developed mythology, but have only in recent European times received the Kuksu religion, while the Miwok have the Kuksu religion, but no truly esoteric myth has been reported by field workers. Since esoteric myths are rather difficult to obtain

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<sup>10</sup> F. Boas. *Mythology and Folktales of North American Indians. Jour. of American Folk Lore*, 1914. p. 402.

More recently, Paul Radin has attempted to show that the elaboration and purification of myth is due, not to social causes, but to the efforts of individuals of pronounced "religious temperament." This is in part true, for the priesthood is mainly composed of the more devout tribal members. Yet, where there is no priesthood, as in South Central California, the religiously inclined individual appears to lack the opportunity of elaborating and handing down his special conception of the cosmos. See P. Radin. *Monotheism among Primitive Peoples*. London, 1924.

from the California Indians, it does not follow that a true creation story among the Miwok is non-existent.<sup>10a</sup>

The conceptions regarding the character of the creator vary from group to group and even within the confines of a linguistic group.<sup>11</sup> Thus, among the northern Wintun, Olelbis (Dwelling on High) is the creator, while Coyote brings death and trouble into the world, but among the southern Wintun, Coyote is the sole creator and benefactor of mankind. Among the Maidu, Earth Initiate, the creator, is again in opposition to Coyote. Among the Yuki, Taikomol (He who walks alone) is again in opposition to Coyote, although the latter also plays a supplementary part to the creator. Although the actual Miwok creation story has not been obtained, it is apparent that among these people Coyote is the creator. Finally, among the coast central branch of the Pomo we find Coyote as the beneficent creator, while Marumda is the creator, and Coyote the evil spirit among the eastern division of this people.<sup>12</sup>

What has evidently happened is this: The common transformer-trickster has been taken out of the folktales of the people and apotheosized.<sup>13</sup> Coyote, in the sacred lore of the initiated, may be a beneficent creator, or he may be a scoffing Mephistopheles; he never remains a Don Juan. The question as to whether or not the priesthood construct a system of dualism with an anthropomorphic deity in opposition to Coyote is purely a matter of chance and has nothing to do with the cultural status of the tribe.<sup>14</sup> The northern Wintun were less advanced than the southern in the matter of the formation of a priesthood, and yet

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<sup>10a</sup> Since this paper has gone to press, a creation story, with Coyote as creator, has been reported from the Coast Miwok. These people had the Kuksu religion. It has also been determined that the Sierra Miwok, among whom a true creation story was lacking, borrowed the Kuksu religion in recent times.

<sup>11</sup> References to these creation stories are contained in Kroeber's *Indian Myths of South Central California*. *University of California Publications*. Vol. 4, No. 4.

<sup>12</sup> See *Creation Stories*, Nos. 1 and 3.

<sup>13</sup> The second story of this collection, an exoteric story of the coast central Pomo, is an account of Coyote in the role of trickster-transformer.

<sup>14</sup> Boas believes that dualism indicates a high cultural development, while Radin's opinion is the exact opposite. (Boas. *Memoirs of American Folk Lore Society*. 1898. p. 4; Radin. *Religion of the North American Indians*. *Folk-lore*, 1914, p. 362.)

it is only among the northern that we find a system of dualism. The reverse conditions hold among the Pomo. The mere existence of a dualistic mythology argues nothing as to the development of religious thought. It is, in fact, found in South Central California as well as in North Central California.

It may finally be stated that a high degree of regional variability is to be expected in the case of the esoteric stories, since they are the personal possessions of small groups of individuals.

While the discussion has so far hinged on Central California, it is not to be thought that this correlation between the growth of the priesthood and the elaboration and systematization of mythology is one that is to be limited either in time or space. Boas has already pointed out this correlation among the Mexicans, the Pueblo tribes, and the Pawnee.<sup>15</sup> Turning our attention eastward we find among the Central Algonkin peoples of the Eastern Woodland area a secret shamanistic society known as the Midewiwin, and an elaborate and methodical mythology. The same stories which are common among the non-initiated concerning Mänäbush, the "foolish fellow," have been taken over, altered, given a religious character, and utilized by the secret society of the Menomini to exalt Mänäbush, and, incidentally, the secret society.<sup>16</sup>

In Polynesia the same correlation holds true. The priesthoods of this region are of a composite nature. A portion of them have been termed "inspirational-priests" (*taula-atua*) and give evidence of having originated from shamans. Another portion gives evidence of having developed from skilled artisans, who have mastered the charms of their professions. These are the *kahuna*. In Niue, however, there are no *kahuna*, and the *taula-atua* are mere shamans.<sup>17</sup> In this island, alone, we find the lack of a

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The arguments that Dixon has brought forward on the subject are not to the point, since he argues from the standpoint of "the general stage of culture of the people," while everyone else is concerned merely with religious developments evinced by the presence of a secret society and priesthood. (Dixon. *The Northern Maidu Bull. Amer. Museum of Natural History*. Vol. xvii, p. 337).

<sup>15</sup> F. Boas. *Mythology and Folk-Tales of North American Indians*. p. 402.

<sup>16</sup> W. J. Hoffmann. *Fourteenth Annual Report of the Bureau of Ethnology*. p. 162.

<sup>17</sup> See E. M. Loeb. *The Shaman of Niue*. *AMERICAN ANTHROPOLOGIST*. Vol. 26,



systematic scheme of cosmology and cosmogony, along with the absence of a priesthood.

There is no reason why this same correlation should not hold true among civilized peoples whose mythopœic stage occurred in great part before the utilization of writing. We do, in fact, find a great conflict of myth, together with the intrusion of decidedly irreligious incident in the accounts of the Greek divinities. Among these people a true priesthood was late in development, and throughout Greek history remained local in character. It is no doubt for this reason that Zeus has been described as "an eternal father, who swallowed his wife, lay with his mother and sister, made love as a swan, and died, nay, was buried, in Crete." In contrast to the Greeks are the Hebrews, whose accounts of their Creator have been more or less carefully pruned by a conscientious national priesthood.<sup>18</sup>

Reverting now to the three creation stories here presented, it will be seen that they are widely divergent in type, although all obtained from Pomo informants. Stories number I and II were obtained from Boston, a native of the Coast Central Pomo, and a man who was initiated by his maternal grandfather into the secret society called Yomta, on the coast. Story I was taught to the informant by the grandfather in great secrecy, and it contains many of the esoteric doctoring songs of the cult. Story II was told by the same informant. This story is, however, exoteric, and I had previously heard the myth, although not in so complete a form. It should be mentioned here that the Coast people are marginal in their possession of the cult; that is, the initiated are still more in the nature of shamans than priests. It is, perhaps, for this reason that their creation story is not so advanced in thought as the East Pomo story III in which a creation of the world from a preconceived idea in the mind of the creator is a prominent feature. Story III was obtained from William Benson,

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p. 393 ff. See also: *The Social and Political Systems of Central Polynesia*. R. W. Williamson (Cambridge, 1924). Vol. II, p. 405 ff.

<sup>18</sup> Andrew Lang. *Myth, Ritual, and Religion*, London, 1913. Bk. I, p. xxiv, p. 307, f.n.1.

who derived his information from the East Pomo. This myth is presumably complete in the relation of incident, but not complete as a matter of detailed narration.

Although I worked among the North Pomo, I was unable to find any informant capable of giving the esoteric mythology. However, from the information of Bowen, a prominent shaman of these people, I gathered that the North Pomo believed in Coyote as the sole creator who fashioned men from feathers. Bowen also recounted how the hands of man were made in imitation of the lizard, and not the coyote. This incident is common to all of California mythology, but was not related to me from the other Pomo regions. Marumda, the creator, is not known to the people of the north or central regions, and this belief, therefore, must be native solely to the Eastern Pomo.<sup>19</sup>

The Coast Pomo had only four sacred directions, to which prayer was addressed before doctoring. These were south, west, north, and east. The addition of sky and earth occurs among the East Pomo.

## CREATION STORIES

### I

In the beginning there was no ocean. It was Coyote who created the ocean. Coyote thirsted for water, and so he went out a-searching, and came upon a bunch of swamp tussock plants. Coyote pulled one of these plants up, and immediately the water started to flow. Coyote started to drink, but the flow raised him high into the air. Then Coyote started to paddle toward the shore, for the ocean had already started into being. Coyote faced the water, which was still rising, and said:

Ka elebida      hampke.  
Water right here      stop.

The water stopped at the place on which Coyote was standing.

The water was calm and still at that time. Coyote said, "It will be low tide sometimes, and the people will be able to get food

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<sup>19</sup> I feel quite certain that any conception of a creator, beyond Marumda and Coyote, was originally lacking among the Pomo. The Chakalle, or "Man Above" mentioned by Powers for the North Pomo, simply means "captain." (*Tribes of Calif., Contrib. N.A. Ethn.* III, p. 161).

here." Coyote commenced gathering weeds, but the water was too high, and so Coyote commanded that it go down in order that the people might gather more food.

Coyote was alone at this time. When he came out from the ocean he started to build a sweat-house. When he came to the place of the sweat-house he found the center pole, and the other poles already there lying on the ground. Coyote wished for the sticks to stand up by themselves. As he wished it, the sticks sprang into position.

When the sweat-house was finished, Coyote obtained black feathers and stuck these up around the sweat-house. That is the reason why Indians are black. Then Coyote faced the fire, and spoke to the feathers: "You all become people."

After this Coyote stood up and told the people that there would be a dance. Coyote taught the people the dance songs, first instructing them in the whistle song:

Yo ho ya ha ya ha,  
Ha ka pili ye,  
Hi hi ye.

Coyote next called for a feast. The people never gave Coyote anything out of the feast. For a whole month they never gave him anything to eat. At the end of the month Coyote became angry. It was for this reason that Coyote started the world fire.

Coyote went around the world eight days putting pitch under the world. The people did not know what Coyote was doing, for he traveled in secrecy. After this the fire started.

As the fire was burning the people cried out, "Father, don't let me burn!" But Coyote replied, "I, too, shall get burned." A fog came along, however, and Coyote arose in it, until he was high up in the air like a bird. From there he called to the fire to continue its burning:

Yo mata ka co.

This was spoken in Coyote language, and means:

Yo ho mdico.  
South fire burning.

After this Coyote wanted to put out the fire on the hill tops where it was still burning, so he made a flood. From the heavens

where he was still staying he wished for rain. He allowed it to rain for five days, and he then allowed the flood to remain for four more days. Then he made the waters recede. After the waters had receded, Coyote made another race of people. He used black feathers again, but this time in an open field. The same day that he set the feathers out, they became people. This was all done by a wish.

Coyote instructed the people to go down to the beach and gather mussels. He went with them; but the people made fun of Coyote, and this made him angry. He then wished for waves, and this is the way that waves started in the ocean. Coyote, however, had never asked that the waves should overflow their banks. But the waves were overflowing their banks and dashing into the woods. Coyote said that he had never asked for this and so he stopped it at once.

Next Coyote posted four men to make the wind blow. He posted the men in the North, the South, the West, and the East. He said to West-wind man: "You are not to blow too hard." He said the same thing to South-wind man, but to North-wind man he said: "You are to blow a little harder than South-wind man." Coyote told the four wind men, "When you blow you will make it rain. When it rains it will rain more in the winter months, but do not have floods."

At this time it was still night; there was as yet no daylight. Coyote told Bakeela (Thunder-man) to make his sound when it started to rain, and when it cleared off. He told Bakeela to go half way up to the sky, and over the heavens. He told him also not to break the rocks or trees too much.

All these things Coyote commanded in front of the people, yet they did not believe in him. Then Coyote grew wroth, and he spoke: "You will be cottontails, you, gophers, and you, birds." He apportioned the various foods among the birds, telling some to live on meat and others on fish. He told the birds that they should live in the air, and the cottontails should live in the grass.

Coyote next said that he would create night and day, and that he would place the sun in the sky. He turned to the bird people, some of whom were faster than the others. He told them to try

to see who could put the sun into the sky. The buzzard lived only on the waters, and he was the fleetest of them all. It was he who put the sun into the sky. The sun was taken from the ground where the people were standing.

The people watched the buzzard coming down, and they had a big basket full of beads to pay him with. So the people paid the buzzard.

Coyote told the sun to appear in the morning and to hide at night. When Coyote made the sun, he had a mud basket. The water was clear as crystal in the basket. He told this water: "You will be daylight and night."

After this Coyote wished for the stars to shine at night. "The stars will be more numerous than the sands of the earth," he said. Suddenly one of the stars fell, but Coyote saw it when it was half way down. "Tu, tu, tu, tu," he cried; "that is not the way I am telling you to act."

Next Coyote made the moon. He placed this himself. He did this by wishing. "So many days you will divide yourself; you will not always be full," he told the moon, giving him clothing to cover himself with, so that he should not always be full. Then he told the moon about growing the food, especially the buckeye and the acorn. The moon was to grow all of the food.

Coyote made the fog out of his own breath; he blew it out. This he created for the purpose of sprinkling grass and grain, so that things would grow.

Coyote told the people that if the sun stayed in one place it would burn things up. He told the moon to go behind and in front of the sun in order to make things grow.

Coyote turned toward the people. "You people do not believe in me now, but watch what I do."

Next Coyote faced the south, and swayed back and forth toward the east and west in order to see whether the earth would sink. As he did this the west side of the earth sank. (There was water under the earth, and that was why Coyote was able to shake it.) Coyote next went to the East pole, and pounded to see whether the earth shook. Then he went to the south pole and clear round in order to see which side of the earth was shaking.

When Coyote came to the South pole, he made one man to watch this pole. He named this man Kuksu.<sup>20</sup> He also made Kuksu a wife, Kuksu-woman. Kuksu and his wife were ordered to wear always the "big head." He told the couple that when people doctored they would mention their names. He told Kuksu to cure some of the people, but not to cure every time. He told the woman that she would also be called Kuksu, and that she should do likewise.

Then he taught the woman the Kuksu doctoring song for blindness:

Matane a huyue  
Habe e a yo  
Masi lemi  
Kuksu a mata  
Ho ho ya.<sup>21</sup>

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<sup>20</sup> Kuksu is an important character in Pomo mythology and in certain ceremonies. He is a person of characteristic Pomo physique, but possesses great power as a medicine man or doctor. He always appears painted entirely black, wearing on his head a very large headdress, called "big head," and with a tuft of shredded tule fiber attached to the small of his back. He carries a black cane or wand, and, while doctoring, blows constantly a large whistle made of elderberry wood. (S. A. Barrett. *Jour. Amer. Folk Lore*. 19, p. 40 N. 1.)

<sup>21</sup> The two songs here given are very sacred, and were sung in the secret language of the Yomta, or secret society of the Coast Central Pomo. Among these people the association of Yomta did practically all of the curing, sucking doctors were unknown, and there were no outfit doctors outside of the society.

While I was unable to obtain a literal translation for these two songs, I was instructed as to their general meaning. In the first song Coyote names the eyes (*huyue*) of Kuksu woman (Kuksu a mata) and instructs the Kuksu woman to make the eyes of the sick woman (matane) as perfect as her own. Coyote also instructs Kuksu woman to remain on the end (lemi) of the earth. This song was an esoteric cure for blindness, and was perhaps sung by a woman Kuksu impersonator.

The second song was sung in order to cure a scared person. If a person believes that he has seen Kuksu, Bagil (a mythical dragon), or Guya (a ghost), the head Yomta rigs up in the Kuksu outfit and runs in to the patient, who is placed lying in the open. The Kuksu makes four charges toward the patient, and then takes off his outfit and places it upon the patient's body. Then he blows his whistle four times from the head of the patient down to his feet. After he is through blowing the whistle, he takes the rigging off the sick man's body, and places it on the sick man's feet. He does this four times. Then Kuksu picks up his headgear, and smacks his lips four times at it, after which he throws the headgear on the ground. Then Kuksu blows his whistle four times at the patient's head, twice on each side, after which he shakes the patient's head four times, smacking his lips. He does this, likewise, to three other parts of the sick man's body, the arms, waist, and legs.

After this Coyote taught the Kuksu man the song with which to cure scared people:

Yo la lal a ha  
Habe yoho Kuksu  
Halaji  
Mi kejina.

After Coyote had finished teaching Kuksu man and Kuksu woman all of their songs, he tested the pole which held up the south end of the earth by getting hold of it and shaking it, after which he went away. When he found the South pole solid, he called the south *yoma*.

Next Coyote went east, then north, west, and south. He did not stop but went clear around the world. Finally, he went back to west, and then to north.

Coyote placed a man at the North pole. This was Wind man (*yadjaj*).<sup>22</sup> Coyote said to Wind-man, "You will make the winds blow, and sometimes in doctoring, the people will mention your name. Coyote gave Wind-man four sticks tied like a (modern) windmill; this was called *yap tipta*. At the end of each stick there was placed a basket. Coyote showed Wind-man how to turn the windmill over and thereby make the wind blow. Then Coyote told Wind-man to try his instrument. Wind-man turned the mill, but he did it so rapidly that the wind made a clean sweep of the earth, tearing off all of the dirt. "Sh—sh—sh," cried Coyote, "not that way." The earth was perfectly flat before, but when the first wind came it blew up the dirt, and made knolls. That is why there are hills today.

Coyote made the ocean run south with the wind. Next Coyote went east, and called for the man there. When the man appeared

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After this comes the singing of some song, such as the above, and a prayer addressed to the four directions, South, West, North, and East. Finally, the relatives bring four baskets of acorn mush, and four baskets of pinole as payment.

In the song given, mention is made of the Kuksu headdress, *kejina*. In the continuation of the song, here omitted, mention is made of the Kuksu necklace, whistle, belt, stick, and black paint. All of these articles were given by Coyote to Kuksu at the time of creation, and from then on possessed magical qualities in effecting cures.

<sup>22</sup> Wind Man is not impersonated in any of the dances or cures of the Pomo, nor are the gods of the east or west.

Coyote named him Fire-man (*hodjaj*). Coyote told Fire-man that he would have charge of daylight and heat.<sup>23</sup>

Coyote also instructed Fire-man not to throw too much heat out during the winter months, and thus prevent things from growing.

The sun was about half way up when Coyote was talking to Fire-man. But Coyote made the sun move back again. "You went too fast," said Coyote to the sun, "You go slowly now and please the people out in the world."<sup>24</sup>

All of the stars, the moon, and the fogs start from the east, because that is where the sun comes from.

Coyote named three people in the east: Ka'a djaj, Daylight-man, Ka'a mata, Daylight-woman, and Ho djaj, Fire-man.

Coyote then started the daylight song, in order to instruct Daylight-woman. He told the woman that she should only mention two names in the song, *Bakuku* (owl) and *Cokalala* (a large species of swallow).

Kale ya le a,  
Kale ya le lo,  
Mana bakulu djaj,  
You Owl-man,  
Ka'a elbaloke,  
Daylight will call.

Owl-man, you will stand facing east, and from there call for daylight <sup>25</sup>

Coyote taught this song to Daylight-woman, and Daylight-man listened.

Coyote told the Fire and Daylight people that when people on earth doctored they would be mentioned in the doctoring songs. Before he left he also instructed these people not make it dark too long, but to make daylight and night of equal length. "You do all this all the time, and don't forget," he said.

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<sup>23</sup> It will be noticed that in this myth the sun does not create daylight, but another personage is needed for the purpose.

<sup>24</sup> The slowing up of the sun, ascribed in Polynesia to Maui, is a feat known elsewhere in California. Among the Yana it is Jupka who slows up the course of the sun.

<sup>25</sup> The second verse is the same, only the name of the swallow is substituted for that of the owl.



After this Coyote went back to the North pole, and then to the West pole. When he got to the West pole he called out: "Lul lul lul lul lul."

Then Water-man (*ka djaj*) came. He was a person, but you could see that he was made entirely of water.

"You, Water-man," said Coyote, "You watch the West pole, lest it break." Then Coyote instructed Water-man, "The sun," he said, "will come on your trail, and when he gets here you will tell him to go back. This will be your work."

Just at this moment the sun came and climbed down the West pole, and stopped right there. There was water at the bottom of the pole. The sun stayed in the water and cooled off, so that he would not make the bottom of the earth hot. There was a basket of water that the sun was to sit in when he came from the east, and eight bouquets of different kinds of flowers around the basket. The flowers were red, white, blue, black, light brown, green, and purple. These flowers were placed there before the sun rose back. If the flowers remained fresh and did not wilt, the sun was let go, but if they wilted the sun was forced to remain a little longer. This was done so that the earth would not catch fire.

While Coyote was still at the West pole with Water-man he called for Thunder-man.

"Cadjata ya we e e e  
e  
e!  
 Bakeela ya we e e e  
e  
e!  
 Hikok ya we e e e  
e  
e!  
 Kaliba tautau ya we e e e  
e  
e!"

These were the four names of Thunder-man.

Then Thunder-man appeared. When he came in, a big hail storm came with him. The hail was as large as marbles. As Thunder-man entered he took something from under his left arm; it was lightning. It very nearly burned the pole.

"Tu tu tu tu," said Coyote; "not that way."

From under the same arm Thunder-man took out a deer skin. This made a thundering sound and shook the earth. Coyote again stopped him in the same way, for fear he would crack the earth.

Then Coyote instructed Thunder-man, "You will not stay here. You will stay half-way east, half-way north, half-way south, and half-way west. You will stay in the center. Your house will be built of rock. The only door that you will have will be on top. The water will not get in from the top. From that place you will go east and show your light, by raising your arm. You must not keep your arm up too long, or you will set the earth on fire."

From Thunder-man's house Coyote made a fish hole on the east side. He gave Thunder-man three things, the whistle (*libu*), the cocoon rattle (*kaiyau*), and the split rattle stick (*haibat-  
aubatau*). He told Thunder-man not to make the sound of thunder from his house, but to go far up in the sky and to travel east, north, south, and west. He should make the sound of the thunder by dragging his deerskin, but he should not make the sound too long, for fear of cracking the earth. Coyote said, "When you go up in the sky let no one see you. You will only make the sound when there is rain, hail, and clouds. You will hide behind the clouds. You will only make it thunder four times, or if you wish more noise, do it eight times, but no more. When you do this do not jump too hard upon the earth, for the wind you make by your jumping will break some of the trees. It will not break all of the trees, but it will break some of the trees."

Then Coyote told Thunder-man that he would have long hair. The hair would flow all the way down to his feet. "When water comes into your house," said Coyote, "your long hair will float you out." "When rain makes the rivers rise up," added Coyote, "you will let the salmon out from the fish house into the rivers."

The final instructions of Coyote were concerning doctoring. "When anybody is sick, doctoring will be done in your name, and from the trees you strike medicine sticks will be taken."<sup>26</sup> Then Coyote went away.

<sup>26</sup> These sticks are called *kalichbau*. There are four of them, each six inches long. I was unable to obtain any information concerning the use of these sticks in

The sun was already on top of the water when Coyote stopped talking. He first went east, where Fire-man, Daylight-man, and Daylight-woman were, and he told these three people that he was going to make another race, but of a different kind.

The first village he made he named Kamalaldapo, and then Tomkai, Ciulkea, Basultakea, and Yokaia. Then turning south he made Cokawa, Makahmo, and Nisaalke.

After Coyote had named each village he stuck up four black feathers in each of the places where the people were to be. Then he wished. At once the people commenced to appear. As soon as all of the people were present he instructed each village to build a sweat-house. He told them to dance and feast. They should do this sometimes, but not every day. He told them not to poison or kill one another, and, if they obeyed, the wild oats would grow in abundance for them.

But when he told them these things he also said that there would be fire again, and flood again, if the people did not do right.

Coyote also told the people not to go over their village grounds and steal. If they wished to go over they should ask permission. If they killed or poisoned one another, there would be another flood and another fire.

Coyote then named all of the plants that the people should eat: the acorns, the nuts, and the fish. He told them when they had plenty, when the acorns were abundant, they should have feasts and dances, but that they should not do this all of the time. By doing this way, by having feasts and dances when the acorns grew, they would have plenty for the next year.

From that place the people never saw where Coyote went. After he had departed they commenced dancing. No one has ever seen him since.

## II

Coyote was the father of Thunder-man. Coyote had no wife, but Thunder-man was his son just the same. Coyote was living with Thunder-man. Coyote was quite old at this time.

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medicine, the bull-roarer (*padok*) alone being used. Among the North Pomo the bull-roarer is also used in medicine, there it is called *Kalimitautau padok* (the doll of Thunder-man) and is made from lightning-struck trees. Among all Pomo the bull-roarer is esoteric, its nature being concealed from women and uninitiated men.

One day Thunder man started out to fish from the South pole. He traveled north, and whenever he came to a river he started to wade down and lay baskets there. But each time he saw that there were no fish in the river, and he continued on.

Thunder-man did this every day. Each day he was unsuccessful. Finally he came to Buldam (Big River). There he camped on the north side of the river. He had his wife and his father Coyote along with him. Thunder man built a dam in the river, and laid his fish basket alongside of the dam. This grew into an oak tree which is still there down to this very day. Then Thunder-man was finished and he went home.

Thunder-man told his father Coyote to go down and look at the dam and see whether it was washed away. Coyote went down to inspect the dam. He stood alongside of it and saw that the sticks of the dam were tied with snakes. This sight made Coyote faint, and he fell down into the sand.

When his father did not come home, Thunder-man himself went down to look at the dam. He saw the old man lying in the sand, and so he continued on to find out if there were any fish in the basket. It was a whale. Thunder-man dragged the whale to the shore, and cut off its tail.

In the meanwhile Coyote had gone home. The wife of Thunder-man had gone out to get wood. When she had filled her basket full of wood, she put the strap of her basket over her shoulder, and tried to lift it up. She was unable and so she threw off some of the wood and tried again. She failed once more to lift the basket. Then she looked under the basket. There was Old Man Coyote clinging to the bottom of the basket! Coyote jumped up and seized the woman.

Thunder-man came home from fishing. He found his wife crying, but she did not tell her husband what had happened. Thunder-man then made a hole in the ashes in order to cook the fish tail. He threw the fish tail into the hole, after which he picked up his father and threw him also into the hole with the fish tail. Then he trampled down the place, and covered it with hot ashes.

Old Man Coyote cried out, "I feel warm." He managed finally to make a hole in the side of the oven and creep out, but his fur was all singed.

Meanwhile, the wife of Thunder-man was pregnant and she kept on crying all the time. As soon as Thunder-man was finished attending to his father, he once more questioned his wife as to why she was crying. "Have you a headache, or is your baby about to come?"

The woman did not answer, but kept on with her crying. Thunder-man whipped his wife and kicked her out of the door. The woman hung on to every object she could find—trees, bushes, and rocks. But the husband tore off her grasp each time, and continued kicking her along. He kept kicking her toward the ocean.

Finally they came to the bluff at Buldam. Here the woman turned to her husband and pleaded, "Leave me alone now, stop now, my husband." But Thunder-man was angry, and he would not stop. There was a round hole over the bluff, and the man kicked his wife into this hole. The woman crept down from this hole, and swam out to the rocks. There she gave birth to her child. The child was a seal. This was the way that the seals started.<sup>27</sup>

When the husband saw that his wife had given birth to a child, he stood on the bank and called to the woman to come back, holding out baskets and beads in his hands. But the woman paid no attention as she was facing south. And so Thunder-man went to the side of the bluff and commenced throwing sticks into the water, cursing his wife, "You will turn into a seal, you will turn into a shark." For each stick he named a different fish.

Then Thunder-man went home and took out the whale tail which he had buried under the ashes. He opened out the tail and started to eat it. Coyote was lying there, all singed, but he was given none of the fish.

When Thunder-man had eaten his fill, he took out all of his best robes and baskets and laid them on the ground. Then he commenced singing love songs.

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<sup>27</sup> The rocks here referred to are rocks about a mile and a half from the coast at Big River. These, in former times, were crowded with seals at certain times of the year. The Pomo seal hunters were accustomed to swim out to these rocks, not possessing seaworthy rafts, and club the seals. They would then swim back with the booty. Only the strongest swimmers could engage in this profession.

The first animals that entered the house were two skunk girls. Then all other kinds of female birds and animals came in, for it was still in the bird age. Presently the house was full of animals. Finally two mallard duck sisters arrived. When these came in Thunder-man stopped his singing.

Phew!" cried all of the animals, "there is something in here that stinks!" It was the skunk women, and so they were driven out of doors.

Thunder-man told everyone to help himself to the whale tail. But they were all bashful. Finally Crow girl took a bite from it. She was very good looking, being all shiny and black. After Crow had tasted she said to the others, "This tastes fine; now you all come and eat." The women then ate half of the tail.

Thunder-man tied both of the mallard ducks with hairs from his head; he wished them for his wives, and feared lest they escape. To his father, Coyote, he gave Toad-woman. She, indeed, was far from being a beauty!

Thunder-man put beads around the necks, waists, wrists, and on the hair of the two mallard ducks. He married them in this way.<sup>28</sup> And they, in truth, were the prettiest of all the animals.

After this the remainder of the company departed. Only Frog-woman and mallard ducks remained.

Thunder-man went to get wood. He had a big sling and four large rocks ready for use. He picked one out and departed. There was a dry tree standing near at hand. Thunder-man hit it with the rock and broke it into pieces. He took some of the wood home. Thunder-man was able to carry a huge load, enough to last for three or four days.

Thunder-man stayed with his wives for four days. On the fifth day he went away alone. He took with him all of his good costumes, bead hair nets, robes, bear skins, otter skins, panther skins, and brown bear skins. He wore all of these on his body, and departed, going west.

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<sup>28</sup> The Pomo never *married* after this fashion, i.e., by singing love songs and giving beads to the bride. They used this method to obtain mistresses. Marriage was an affair arranged between the two families.

Thunder-man walked on the top of the water. You could see the water splash as he walked. He had four little sticks on his head, which were hair pins he used to fasten down his hair net.<sup>29</sup> After he had progressed a fixed distance from the shore, he pulled out one of these hair pins and stuck it into the water. You could see the pin sticking right into the surface of the water. The same distance a little further along he stuck down another pin. He kept on doing this until he came to the further edge of the water, where he stuck in his fourth and last pin. Then Thunder-man went under the water.

The last pin started to cry out, "Hu hu hu hu!" Old Man Coyote heard this pin cry out from the distance. He then began to imitate his son. He dressed in his finest clothing and went outside where he answered the four calls. Then he started off.

With the first step that Coyote made from the shore, he stepped on one of the pins that his son had set up. He made four steps, each time stepping on a pin, and with the last step he landed on the further shore.

When Coyote landed he looked around. Thunder-man was not in sight. So Coyote tried to build a boat out of tule; he tried for two days, and finally succeeded. He had pulled out the pins while walking across the water, and these pins he now stuck into the boat. When the boat was finished, Coyote turned the prow east, but as yet did not get into the craft.

Suddenly four great peals of thunder came from under the water. Then Thunder-man appeared, amidst a storm of rain and hail. The hail storm was so heavy that it cut the boat into ribbons.

While it rained and thundered, Old Man Coyote talked to himself; "Why did you do that—thunder, lightning, and rain—without my knowledge?"

Coyote then made another speech. "All right," he said, "you make it rain, but that is all you will do. You are no longer my son."

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<sup>29</sup> The hair pins of the Pomo Indians were called *kanō*, and were made of *manzanita* wood.

When Thunder-man heard this, he raised Coyote right up into the air with a flash of lightning. Coyote yelled, "*Mede, mede, mede.*" (Son, son, son.)

The old man continued, however, in his flight to the heavens. Finally he stopped on one of the clouds and rested. From the cloud he called out to the two wives of Thunder-man, "You will turn into birds and swim in the water." To his own frog wife he called, "You will remain under the water." Then he wished that they would have a hard time of it, and that the water would be rough all of the time.

After this Coyote continued on his journey to the heavens. As he rose he stopped four times, and each time the heavens shook. Then the sky opened and he went right up into it. From that time on nothing further has been heard of Coyote.

### III

Marumda was a man-like being who lived in a cloud house in the north. He had no one to talk to except himself. He called Kuksu a brother. He said that Kuksu knew his own ideas as well as he did himself.

Marumda talked and talked and talked to himself. Then he started. He took one of his hairs from his head, and asked the air to direct him in the direction of his brother. A breeze came along and pointed south, and he followed this direction.

Marumda came to the house of Kuksu. It was the same as his own, a cloud house. Marumda suggested to Kuksu that they make the world and Kuksu agreed. Kuksu then took a little piece of gum from under each of his arms and rolled it into a ball. He also rolled a little piece of feather with the gum. He handed it to Marumda. Marumda took some fur from under his arms and rolled it into a ball, and then he rolled the two balls together.

Marumda had a pipe with designs on it. Everything on the pipe corresponded to things as they would appear on the earth. Marumda pointed out where everything should be. In one place the forests, in another the brush, in still another place the water. All this was marked on the pipe.

Marumda filled his pipe with tobacco and blew the smoke on



the ball. Then he wished, as he smoked, that this thing should be here, and that that thing should be there, all in accordance with the design.

Marumda then attached a sinew cord to the ball and tied the other end of the sinew ball to his ear. He lay there holding the ball in his hand. Every once in a while as he went to sleep the ball jerked. Each time, however, there was as yet nothing there. This jerking and sleeping continued for eight days. Every day he turned over he called it a day.<sup>30</sup>

On the eighth day Marumda went to sleep. Suddenly the ball got so heavy and large that it slipped from his hand and pulled him along with it. It was the earth.

Marumda went around the earth to see if the water and mountains were placed correctly, according to the designs he had upon his pipe. But as yet there were no people nor animals upon the earth. So Marumda said to Kuksu, "We must make something that will occupy the mountains and forests." And so he made deer, and birds, and rabbits. He made these before people.

Then Marumda and Kuksu went around the world together, but they saw no people, and so Marumda said, "We must have someone here to take care of all of this. There must be some people to enjoy the world."

Kuksu gave Marumda four feathers with which to make people. Marumda took these feathers and made women. Then he took his own hair and made men. He put the people here and there, wherever it was a good place for a village. He showed them where there was basket material, trees, and all things which they would require. Marumda also showed the people how to handle the materials. The people baked the first acorns and Kuksu showed them how to soak the acorns.

Marumda told the people that if they killed any of the animals at the times when their women folk were menstruating, great harm would fall upon them. He also told the animals where they should go and live. Then he told the people how they should kill and eat the animals.

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<sup>30</sup> As yet there was no sun, night, nor daylight.

Marumda went to the ocean. "What is this water for?" he asked. He fetched one of the men whom he had made, but the man was unable to drink of the water. Marumda then said, "This water is not for you to drink, but to bring you food. Your water is clear and is on mountains."

Marumda next made the shell fish, and other fishes of all kinds. After this the people went down to the ocean to gather these foods.

After this Marumda desired that there should be light, so that the people might see. So Marumda lit his pipe, and while he smoked he prayed. Then he blew the fire out toward the heavens. A big ball of fire blew out, casting sparks in all directions. These sparks remained; they did not go out. The sparks turned into stars, and the ball of fire became the sun.

Marumda said, "This sun will watch over you and cook your food. When this goes out, you will take your rest; but when it shines then you must hunt."

But this first race of people presently became cruel, for they had too much power; they could fly and they could crawl. They began to commit incest with one another. Marumda said that the great waters would come over them, and destroy all of the people.

It happened after that fashion. Only a few families survived the flood. The beaver family and the otter family were not destroyed. These families were named that way, because they could turn into these animals when they desired. They could not turn into any other kind of animals. They survived because they could live amidst the waters.

From that time on the beavers could marry into the otter family, or the otter could marry into the falcon family, but one family could not intermarry with each other.<sup>31</sup> That is the way in which the second people started.

At the time of the flood Frog put fire away in his stomach, and

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<sup>31</sup> Field workers among the East Pomo have never been able to find traces of moieties, clans, or totemism among the people, nor are the natives given to the usage of inherited animal names. Marriage is prohibited within the family to the fifth cousin. Presumably this totemic tradition was borrowed. The Sierra Miwok have moieties and a system of totemism.

kept the coal burning in this fashion. He did this down in the beaver cave. Beaver knew about this, and so he and Falcon prepared dry tinder on the raft on which they were sitting. Then they went down to get Frog. When they came up with Frog they brought him to the raft and made him spit up the coal onto the dry bush. This is the way that fire started.

Presently the waters commenced to go down. Then they sent Falcon flying high up into the air in search of land. Falcon saw a black speck far off in the distance. He came down and told the others that he was going over to the place. When he came back he brought some black dirt with him; it was from the land that he had sighted.

The people waited until more of the land appeared, and then Otter and Beaver moved the raft over to the dry spot, with Frog sitting on top of the logs.

After this the people stayed on the dry land and kept moving down as the waters receded.

Falcon family got hungry and thirsty, for they could not drink of the flood waters. They sent Beaver family down to their den to bring up some cooked food. But Beaver family could not bring up water, and so Frog went down and brought up some water.

The waters receded further, and the mountains and valleys commenced to appear. Presently the people were able to find the places where they belonged.

It was during these times<sup>32</sup> that Coyote appeared. The weather was still mild, the sea was still smooth, and people were getting their food too easily. So Coyote went in and splashed up the ocean. "This is the way you were meant to act," said Coyote to the ocean. And so the water spirit began to make waves, and the wind began to blow.

Marumda came to inspect the villages. He told the people to be better than the first race. "If you act the way that you did, you will also be destroyed," he said.

The people still possessed the power of becoming either animals or human beings. Falcon, for example, could be either

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<sup>32</sup> The period of the second people is commonly referred to as the "Bird Age" in Pomo mythology.

falcon or man. If a man rolled in the dust, he would turn into a falcon.

After a long time the people again violated the marriage, hunting, and fishing laws.

Marumda therefore sent a wild fire over the face of the earth. When the fire came some of the people ran into the water to remain there until the fire was out. But the water commenced to boil, and it killed the people in that way. Some of the people climbed up high trees, but the trees also caught fire.

As the fire commenced to destroy them, the people called upon Marumda to save them. But Marumda replied, "How can I save you when I also shall get burned?" However, Spider came along, and took Marumda up in his net. It was in this way that he was saved.

Falcon once more was saved. He flew high up in the air, but all of his beautiful feathers were turned black by the smoke. They are still black down to this very day.

Frog was also saved. He went away down under the ground and carried the water with him.

After Marumda had destroyed as much as he desired, he took away from the people the power of changing their forms. From that time on the people were real people, and could no longer become animals; the animals were real animals, and could no longer become people.

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## THE CATTLE COMPLEX IN EAST AFRICA

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(Continued)

### 4.

IN THE ceremonies of birth, there are to be encountered many instances in which cattle are utilized. While they are not so closely connected with birth as with marriage, yet if the use of milk and the imposition of milk-taboos on the mother before the birth of her child, the use of cow-dung and cattle skins be taken into consideration, we find that the cattle-complex enters at one point or another in the ceremonies concerned with the birth of a child. It must be remembered that the principal purpose of marriage among the people of East Africa is the begetting of offspring. Boys make the house of their father great, while girls eventually add to his wealth, and the wife who does not bear children in a reasonable time after her marriage, nor respond to the doctoring of the medicine-man, will be returned to her father and a more fertile sister will be substituted for her.

Among the Kafirs and Zulu, when a woman marries, her father sends a special cow, called *Amadhloza*, with her, to be her own property, and which is supposed to have a particular value for her all her life. The animal itself is sacred, and must not be sold, nor may its offspring be disposed of while the cow itself lives. It can be killed only in time of great trouble, and is supposed to be the final resort to the ancestral spirits; it is sacrificed to them, for instance, when the woman is found to be barren and their aid is desired in removing this stigma.<sup>212</sup> Until the birth of her first child, the parents of a bride may not drink the milk given by the animals received by them as her lobola.<sup>213</sup> When the child has been born, several hairs are pulled from the tail of the cow mentioned above, and made into a necklace-charm. It is worn about the neck of the child, and is looked upon as a strong preventive for evil and an important good-luck charm. The child, immediately after birth, is "washed" in cow-dung, and the father is found to offer

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<sup>212</sup> Leslie, op. cit., p. 195; Kidd, *Essential Kafir*, p. 201.

<sup>213</sup> Kidd, op. cit., p. 228.

an ox as a sacrifice. The baby is not allowed to drink of its mother's milk for two days or more after birth, but is fed on sour milk.<sup>244</sup> It is believed that the mother's milk would coagulate in the stomach of the baby, and thus do it harm; and if illness ensue the first few days of its life, the verdict is usually that not enough sour milk was administered, and that it was put to the breast too soon.<sup>245</sup> Among the Basuto, the mother goes to her parents' house to have her first child. If it is a girl, the husband is notified by the joyous attitudes of the women who come to tell him, if a boy, he is beaten by them.

Quand la jeune mère se dispose à retourner chez son mari, ses parents la purifient au moyen d'un sacrifice, chargeant les chairs de la victime sur une bête de somme pour les transporter a son domicile, et de la peau font une *tari*, . . . destinée à retenir l'enfant sur le dos de sa nourrice . . . <sup>246</sup>

We find nothing of this among the Thonga, nor among the Ba-Ila.<sup>247</sup> Although their rituals are described at length, and we find ceremonial killing of sheep by the former, there is no mention either of cattle or anything connected with them in the discussions of the subject. At the same time, it is quite possible that the reason for this absence of any mention of the use of cattle in the birth-ceremonies among these people is to be accounted for by the rising money-value of the cow, and the disorganization of customs and economic life consequent upon the coming of the whites. As remarked above, according to Mr. Simango, the people of this region use the sheep and the chicken largely as substitutes for the larger animal since recent years, because of this large expense entailed in the killing of a cow or an ox. As would be expected, we find no mention of the use of cattle in this connection in the region between Lake Tanganyika and Lake Nyassa, nor to the east of the latter lake, since the entire cattle complex is essentially weak in this region.

To the north the importance of cattle again begins to manifest

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<sup>244</sup> Leslie, op. cit., p. 198.

<sup>245</sup> Kidd, op. cit., p. 201 f.; Holton, Past and Future of the Kafir Races, p.171; Natives of South Africa, S. A. Nat. Races Comm. Rep., 1901, ch. III.

<sup>246</sup> Casalis, op. cit., p. 201.

<sup>247</sup> Junod, op. cit., vol. I, p. 37 and ff., Smith and Dale, op. cit., vol. II, p. 7ff.

itself. One element of the ceremony attendant upon birth which seems to have a widespread distribution in all this part of East Africa is the careful sweeping of the hut in which the child is born. It is often done by a person of given relationship, and, in many cases, this is a child or a young person. Sometimes, the hut is swept three or four times to make sure the work has been done thoroughly. The sweepings are, in a majority of cases, deposited on the dung-heap of the cattle-kraal, although this does not obtain among the Baganda. Among the Banyoro, relatives of the mother performed this duty. A nursing mother was restricted to the milk of cows which had lost their calves if a child was a boy, but if it was a girl she might drink from the milk of any cow. In the event of the birth of twins (a marked event among all the people of East Africa, either as a matter for great rejoicing or of sinister significance), the umbilical cords of the children had to be cut upon a thong used to tie the legs of a young cow if it became restless while being milked. This cow had to have a female calf. A hoe-handle was used for this purpose if the woman belonged to one of the agricultural clans. At the end of six months, at the festivities marking the close of the long period of purification, the father of the twins killed an ox for the assembled relatives; while the diet of the pastoral parents was restricted to milk for this period.<sup>248</sup> Among the Banyankole the pregnant woman suffered no change of diet, since her food was always milk. The child, when born, was placed on a small cow-skin on the floor, and if it was a boy, the father dug up the gate posts of the kraal and put them on the fire in the hut where the mother lay secluded. This fire was kept burning brightly all the time. The belt worn by the mother until she was well again was the thong used by the husband to bind the legs of cows if they became restless while being milked. Ordinary firewood and the mother's own belt were used if the child was a girl. The purification ceremony took place when the child was a week old; a pint of blood was drawn from the neck of a young suckling bull and cooked to form a cake, and the umbilical cord cut up and added to it. The dish was a favorite

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<sup>248</sup> Roscoe, *Northern Bantu*, pp. 43-48.

delicacy. The children swept out the dust of the hut after the meal, sweeping it four times to be sure nothing was left, and threw the refuse on the dung-heap in the kraal. When initial dentition took place, the child was brought a cow and a calf, and from then on drank only the milk of this cow. The birth of twins was not attended by elaborate ceremonies, but the Bahima regarded it as unlucky if twins of unlike sex were born.<sup>249</sup> In Uganda, where the cattle were held by the nobility, we find that they play little or no part in the actual ceremonies attendant upon birth. The importance of the umbilical cord, the stress laid on the birth of twins, the separation of the mother to prevent contact with her husband or other than specially designated persons, the sweeping out of the hut following this period, are all described at length, but cattle were not significant in the ritual.<sup>250</sup> The Bateso, a tribe where the ownership of cattle is somewhat limited and where much agriculture is done, use sheep instead of cattle in the ceremonies, as is the case among the Baganda, and here again there is the sweeping out of the hut and the depositing of the refuse on the dung-heap of the kraal.<sup>251</sup> After the birth of twins to the family of Nilotic Kavirondo, the parents, after their period of seclusion, are fed a small pot of blood drawn from the neck of an ox, and while they are being escorted to the river to be bathed and shaved, their hut is swept and the floor smeared with cow-dung.<sup>252</sup> The birth of twins is not uncommon among the prolific Bantu Kavirondo, and is regarded as lucky. The mother remains secluded seven days after their birth, and then must eat some of the meat of a goat killed for the purpose. When a mother has lost a child, the next one born to her must be exposed at dawn on the road, and brought back by the first person who passes it; a friendly neighbor usually performs this office after a hint to walk in the proper direction, and she must be presented with a goat before she will surrender the child.<sup>253</sup>

<sup>249</sup> Roscoe, *ibid.*, pp. 123-125; Jour. Roy. Anth. Inst., vol. xxxvii, pp. 106-107.

<sup>250</sup> Roscoe, *The Baganda*, pp. 54 ff.

<sup>251</sup> Roscoe, *Northern Bantu*, pp. 264 ff.

<sup>252</sup> *Ibid.*, p. 283.

<sup>253</sup> Johnston, *Uganda Protectorate*, vol. II, p. 749.



The importance of twins is seen among the Wawanga, particularly in the care taken to prevent the mother from doing harm to the cattle. A woman who has borne twins may not look at a cow in calf for fear that the milk will dry up; should this occur, the services of a medicine man are necessary to avert the danger. A charm is hung about the neck of a cow belonging to a village in which such a woman resides, and this is only removed when the calf has been weaned.<sup>254</sup> The Akikuyu, only a few of whom have cattle, use sheep in their birth ceremonies, although for six days before her child is born a mother eats only flour and milk.<sup>255</sup> The A-Kamba regard the birth of twins as exceedingly unfortunate, and in former times one of the pair was thrown into the bush. The same attitude is shown toward a cow which gives birth to twin calves; the mother and both calves must be slaughtered at once so that illness and death may be avoided for the village. On the day after the birth of a child the A-Kamba have a feast; a he-goat is killed for the celebration, or, if the people are well-to-do, an ox is slaughtered. The skin of this animal must not be sold or given away; the woman uses it to sleep on or her husband makes clothes for her from it. If it is disposed of, a strip is cut from it and fastened to the skin in which the child is carried on its mother's back.<sup>256</sup> The Nandi bury the placenta in cow-dung, while the rest of the umbilical cord is cut with the arrow used in bleeding cattle, and buried in the same place. The house in which the birth occurs is washed for a month after the event with water and cow-dung. When the child is four months old, a feast called *tumd'-ap-lakwet* is held. An ox or a goat is killed, the mother, the child, and the animal are first anointed with milk by an elder, and then the face of the child is washed with the undigested food taken from the stomach of the slaughtered animal. The birth of twins is considered inauspicious. Their mother is regarded as unclean for the rest of her life, and she is given her own cow and may not

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<sup>254</sup> K. R. Dundas, op. cit., Jour. Roy. Anth. Inst., vol. XLIII, p. 33.

<sup>255</sup> W. and K. Routledge, *With a Prehistoric People*, p. 147.

<sup>256</sup> C. Dundas, *History of Kitui*, loc. cit., p. 519; Lindblom, op. cit., p. 33; see also Hobley, *A-Kamba Beliefs and Customs*.

touch milk or blood from any other animal nor cross the threshold of the kraal ever again.<sup>257</sup> Of the Masai, it is said:

Masai women . . . . when one of their number gives birth to a child . . . . collect together and take milk to the mother; they then slaughter a sheep, which is called, The purifier of the hut . . . .<sup>258</sup>

When the birth occurs the midwife calls out, and if the child be a boy, they take the blood of an ox as food for the mother; if a girl, they take that of a cow. Thus the father knows the sex of his child.<sup>259</sup> The woman of the Suk pastoral group ties the umbilical cord of her child in a corner of her skin garment until it has turned to dust. After this period she buries it in the dung-heap of the kraal. During pregnancy, a cow is specially set aside for her, and she alone may drink of its milk, nor may she drink the milk of any other animal. This cow must never have had any sickness<sup>260</sup>.

The cattle complex also plays a large part in death-ceremonies. Among the vast majority of primitive peoples death is an event of the greatest significance. In East Africa, the ceremonies at the death of a member of a community vary with his importance, and the range of types of ceremonies is very large. However, we shall here note only those elements of the ceremonials concerned with the cattle-complex; it is to be expected that, since these animals play so large a part in other aspects of the lives of the East African peoples, reference to them would not be lacking at this crisis.

Among the Kafirs, the cows are left un milked so that their disconsolate lowing will support the wails of the women and add to the general air of desolation at the death of their master. The grave is frequently made in the fence of the kraal, or in the kraal itself, the head of the deceased being covered with a skin.<sup>261</sup> Kidd informs us, however, that in the olden days all dead bodies,

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<sup>257</sup> Hollis, *The Nandi*, p. 65, 68; Johnston, *Uganda Protectorate*, vol. II, p. 878, also remarks on the special cow, but says, "The birth of twins is considered lucky, but, at the same time, to be rather a tempting of Providence . . . ."

<sup>258</sup> Hollis, *The Masai*, p. 345; see also Johnston, *op. cit.*, vol. II, p. 826.

<sup>259</sup> Merker, *op. cit.*, p. 51.

<sup>260</sup> Beeck, *The Suk*, p. 22.

<sup>261</sup> Holden, *op. cit.*, p. 381; Casalis, *op. cit.*, p. 212.

except those of privileged persons were dragged out of the kraal into the nearest bush if they happened to die in the kraal. Persons who were near death were usually taken into the bush to die, for the Kafir would seem to have a horror of anything connected with death. The body was not buried but left to be eaten by hyenas; this custom, it may be noted, is the prevailing one in the northern portion of our area.<sup>262</sup> At the present time, however, all persons are buried.

During the days of mourning, which seldom extend the period of one month, no cattle, etc., belonging to the kraal, are allowed to depart. . . . In the case of the death of a chief, "watchers" are appointed to protect the grave. . . . These persons have a considerable number of cattle given to them. . . . which cattle are ever afterward considered sacred. . . . These cattle cannot be seized for any crime of which their owners may be guilty, and, in fact, they are still considered as the property of the departed chief.<sup>263</sup>

At the chief's funeral, many cattle and wives were sacrificed, to keep him company after death, while everyone in a kraal where death has occurred is considered unclean, and the doctor has to go through a long cleansing ritual before the people, the cattle, or their milk can be considered clean. Even after this ceremony, it is some time before the cattle from this kraal may be exchanged or sold.<sup>264</sup> It is customary for cattle to be driven to the grave of their former owner and forced to smell the earth where he is buried; at least one case is cited where this ceremony was performed while the man was still alive, the cattle being driven up to the bed of the sick man, and then driven away.<sup>265</sup>

Cetywayo, ex-king of the Zulu, said that when the warriors gathered to celebrate the thanksgiving of the mealie crop, when the spirits of the dead kings were supposed to be present, a young choice bull was caught and strangled by the young men.<sup>266</sup> At the death of Chaka's mother the great Zulu conqueror, "people all over the country drove cattle to Tyaka (Chaka) to condole with

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<sup>262</sup> Kidd, *op. cit.*, p. 244.

<sup>263</sup> From the report of Mr. Warner, quoted by Holden, *op. cit.*, p. 384; see also MacLean, *op. cit.*, "Addenda to Mr. Dugmore's papers," p. 162.

<sup>264</sup> Kidd, *op. cit.*, p. 249.

<sup>265</sup> *Ibid.*, p. 251.

<sup>266</sup> Native Laws and Customs Comm., 1883, Minutes of Evidence, p. 526, q. 187ff.

him. . . .<sup>267</sup> It is believed that the dead reside in snakes, and these will follow a group to a new kraal; sacrifices of a cow or an ox are offered to them when a relative is seriously ill. The beast is slaughtered and eaten by the members of the kraal, and when the fetlocks are to be eaten they take a large gut which they have reserved, repeat the formula said before the animal was killed, scatter the gut about the quarters of the patient, and later carefully clean out those quarters, believing that he will soon recover.<sup>268</sup> The Thonga use no cattle in death ceremonies. Junod describes them at length, but he only mentions the sprinkling of boiling water over the people, and the doors and back parts of the oxen and goat kraals by the medicine-men to end the period of great mourning.<sup>269</sup> This may again be because of changing conditions under which these observations were made. The custom among the Vandau is to have a period of wailing for as long a time immediately after the death as the circumstances of the deceased will allow. Several months or even a year later comes the making and drinking of the *dolo la malolo*, "beer of mourning," seven days being consumed in making it, while on the eighth it is drunk and cattle are slaughtered if the deceased was sufficiently wealthy.<sup>270</sup>

The Ba-Ila use many cattle in funeral rites.

In every herd will be found some oxen, few or many according to the status of the owners, conspicuous for their size. These are the *masunto* "funeral oxen". They await their master's death, and are intended to provide a feast for his relations and mourners. Their hides form the grave bed. Great efforts are made, and high prices paid, to obtain them, and once secured they are not parted with. As many as a hundred head may be killed at the funeral of a big chief. . . .<sup>271</sup>

It is customary for the friends and relatives to bring oxen to the funeral of the deceased for slaughter as a mark of respect, and these must be repaid with interest by the heir from his heritage. A near relative will bring a large ox, and take away two or three cows, perhaps, or a friend will bring a calf and kill it and take away

<sup>267</sup> *Ibid.*, p. 532, vi.

<sup>268</sup> *Ibid.*, p. 532, iv.

<sup>269</sup> Junod *Life of a South African Tribe*, vol. I, pp. 132-152.

<sup>270</sup> Simango.

<sup>271</sup> Smith and Dale, *op. cit.*, vol. I, p. 130.

a small ox. Sometimes at the funeral of a respected poor man the inheritance is exhausted and the heir must go to his own herds to do his duty in this respect.<sup>272</sup> The dead man is buried in the center of his cattle kraal, and it is after the burial that the oxen are brought to the funeral to be killed; the "wrapping-up cattle" are killed before interment takes place. The most striking portion of the funeral is the feasting; everyone who comes brings something, and everything is eaten. The flesh of the ox whose skin is laid on the floor of the grave is not eaten by the mourners but is given to the dogs.<sup>273</sup> In the central portion of the East African area, the general weakness of the cattle complex is to be observed here also. Among the Wa-Yao, although there are elements which remind one of the Thonga and Ba-Ila customs, no mention is made of the use of cattle; among the other tribes in this region a similar condition obtains.<sup>273a</sup> Fowls are killed and serve as bearers of the tidings of death; calico is used to drape the graves; food-stuffs are given to show respect for the dead. But as far as death ceremonies are concerned there is no use of cattle mentioned among the tribes described.

In the region centering about Lake Victoria Nyanza, however, the usages involving cattle become so numerous as to be almost bewildering. In Bunyoro, the body of the king, immediately upon his death, was wrapped in well-dressed cow-skins and then sewed in a raw cow-skin recently flayed. His grave was lined with cow-skins, and two or more of his principal widows, the boy who announced the approach of the sacred cows, the chief herdsman and others were clubbed to death. In addition, several sacred cows were killed. An ordinary man was buried in the dung-heap of the kraal, the body wrapped in cow-skins, the grave lined with them. The milch-cows were not milked but allowed to low for their calves, which were shut up in the rear of the kraal, while a bull selected from the herd of the deceased was made to low with pain from a cord tied tightly about its scrotum. In the early

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<sup>272</sup> *Ibid.*, vol. I, pp. 305-306.

<sup>273</sup> *Ibid.*, vol. II, pp. 104-118.

<sup>273a</sup> See Stannus, *op. cit.*; Werner, *British Central Africa*; Macdonald, *op. cit.*; Johnston, *British Central Africa*.

morning this bull was speared by the eldest brother of the deceased, and the meat was distributed among the mourners. During the long mourning period, milk might not be drunk, but the mourners had to eat meat and drink beer provided by relatives and friends of the deceased. The oxen killed were offered to the ghost of the dead person, the blood being poured on the ground instead of being carefully caught and consumed. Oxen were eaten in the ceremony to end mourning, and a calf and a cow were taken to the king.<sup>274</sup> In Ankole, on the day after the death of the king, an ox was killed and the raw hide stitched about the body. This was only the first of many animals to be offered; a priest washed it with milk before it was offered. Members of the pastoral clans were buried in the dung-heaps of their respective kraals, and after three months of mourning were over, the survivors moved to new kraals.<sup>275</sup>

The body of the dead Mganda king was smeared with butter, and among the numerous persons put to death were the chief over the herdsmen and the man who had charge of the king's milk-pots and milk. Those who guarded the body were given ninety women, ninety cows, ninety goats and ninety bark-cloths as their compensation. The jaw-bone of the king, of special significance, was washed in milk and beer, while the wrapping for it was rubbed with butter. Cattle did not figure in the death ceremonies of the ordinary man, but the feast provided by the heir at his installation was a goat or an ox, according to his means.<sup>276</sup> Among the Bagesu, the medicine-man offers a goat or an ox to the ghost of the deceased, while the body is left to the hyenas to be devoured. On the fourth day, when mourning ends, an ox is killed and the mourners have a sacred meal; here the heir is announced.<sup>277</sup> The Basoga place their dead chiefs in tombs; at the end of the mourning period the sub-chiefs bring oxen and beer. The finest ox is taken to the door of the tomb and the heir

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<sup>274</sup> Roscoe, *Northern Bantu*, pp. 50-61. See also Roscoe, *Jour. Roy. Anth. Inst.*, vol. xxxvii, pp. 101-102.

<sup>275</sup> *Ibid.*, *Northern Bantu*, pp. 128-130.

<sup>276</sup> Roscoe, *The Baganda*, pp. 105-122.

<sup>277</sup> Roscoe, *Northern Bantu* p. 178.

must kill it with one thrust of his spear, otherwise he will not prosper in his office. Only those who have observed all the taboos may partake of the meal that follows. In the case of commoners, the ox is similarly speared, but afterwards the heir must get away from the importunities of the poorer members of his clan, who will try to capture him and extort promises of presents. This is in northwest Busoga; in the central district the ceremonies vary slightly,—the skull is of importance, and the woman who guards it is given a cow, a female goat, and a hen. It is later put in a forest belonging to a chief, and a sheep, a cow, and a goat are offered, the meat as well as a woman for his wife being given to the guardian.<sup>278</sup>

The warrior comrades of the dead Suk kill a sheep the day after his death, and eat it; six days later they kill one of his bullocks and call the other warriors to partake of the feast, while more bullocks are slaughtered when the property of the deceased is distributed. The body of an ordinary person is thrown into the forest by his relatives, but that of a rich old man is buried in the middle of his kraal with three feet of cow-dung above him.<sup>279</sup> The A-Kamba drag their dead into the bush to be devoured by hyenas, only the chiefs being buried in graves, but this condition, according to Lindblom, is prevalent only in western Ukamba.<sup>280</sup> In the east people are buried in shallow graves; a married woman whose husband has only one hut is buried in the dung-heap of the kraal, but if she had a hut to herself, she is buried there and it is destroyed. In Ulu it is customary for the son's son of the deceased to turn the first sod of the grave, and "the importance of this act is shown by the fact that the person concerned receives a cow."<sup>281</sup> Dundas, however, notes that burial is looked upon by the A-Kamba with disfavor, and only the head man of a village and his big wife are buried; their graves are dug inside the kraal.<sup>282</sup> As death approaches, the Masai offer a black steer as a sacrifice in

<sup>278</sup> Roscoe, *ibid.*, pp. 202, 224, 228.

<sup>279</sup> Beech, *The Suk*, p. 22.

<sup>280</sup> Hobley, *Ethnology of A-Kamba*, pp. 66-67; Lindblom, *op. cit.*, pp. 95ff.

<sup>281</sup> Lindblom, *op. cit.*, p. 97.

<sup>282</sup> C. Dundas, *op. cit.*, *Jour. Roy. Anth. Inst.*, vol. XLIII, pp. 522-23.

the hope of averting it. The oldest son of the dying man takes the animal to be sacrificed outside the kraal, kills it with one thrust, skins it, divides it in the usual manner and leaves the flesh. When the deceased is the father of a family, the son quickly kills a black ox and cooks its fat, and with one part he anoints his own body and with the other the corpse.<sup>283</sup> Corpses are thrown into the bush west of the kraal and left for hyenas. Those of old men and women are not wept for nor are their bodies "thrown away"; they are anointed with sheep fat and the bodies are taken to a shady place. A bullock is slaughtered and the meat eaten on the spot; the bones are left to attract animal scavengers. A medicine-man or rich person at death is put into an ox-hide, placed into a shallow trench and covered with stones.<sup>284</sup> Among the Waniaturu,

Every owner of cattle has a special large, beautiful ox which has been put aside to be killed at his death.

The corpse is wrapped in the freshly taken skin, and placed in the grave. For women a small ox is killed, for children a sheep or a goat; the offering is consumed as a funeral repast.<sup>285</sup> Just before death, the Nandi pour milk in the mouth of a dying person. The body is taken to the west of the hut and left for hyenas to eat. When the moon is in the last quarter after the head of a family has died, an ox is slaughtered and the friends of the deceased come and eat it. Old people and very young children are buried in the dung-heap of the kraal; the bodies of old men are sewed in an ox or goat hide, and milk and beer are put in the grave.<sup>286</sup> Wassukuma dead are buried outside the huts, and at the grave a bullock is slaughtered, unless the deceased was very poor, in which case a sheep or a goat is substituted. After the mourners have eaten the meat, the skin of the animal is spread over the body and the grave is closed.<sup>287</sup> Seligman notes that among the Dinka, milk is sprinkled on the graves of the rainmakers, who are ceremonially

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<sup>283</sup> Merker, *op. cit.*, p. 192.

<sup>284</sup> Hollis, *The Masai*, pp. 304-305. See also Merker, pp. 193-194; he says the trenches are left uncovered.

<sup>285</sup> von Sick, *loc. cit.*, pp. 42-43.

<sup>286</sup> Hollis, *The Nandi*, pp. 70-72.

<sup>287</sup> Kollmann, *op. cit.*, p. 173-174.



killed in old age. However, the near relatives of a man who has died may not drink milk for several days after his death, for they sleep near the grave during this period.<sup>288</sup>

If we survey this recital of the instances in which the cattle complex figures in birth and death ceremonies, their variety seems enormous. On closer scrutiny, however, one psychological reason for the use of cattle appears everywhere. They constitute one of the most important elements in the culture of the people; whatever the form of their actual ceremonies, these animals, or something associated with them, are found to be present. Full description of the ceremonies is manifestly impossible; however, it is to be noted that other elements play their parts,—e.g., in the north, bark-cloth is utilized, as are cowry-shells. But one point of special interest must be remarked. Almost every observer states that, cattle being wealth, there is great reluctance to lose any of them. It would argue their great significance, therefore, when one sees again and again, especially in burial ceremonies, the almost prodigal consumption of their meat.

##### 5.

It would be strange if the cattle complex were not strongly manifest in inheritance. Since wealth here consists so largely of cattle, inheritance customs must concern themselves largely with the passing down of these animals. Certain points stand out in the entire area and will be set forth at some length below. In summary they are that, by and large, the heir must be a man; that the things inherited are principally cattle and widows although the right to continue working a given plot of land is also inherited; and that often the principal heir is regarded as the head of the family and responsible for his brothers and sisters.

Among the A-Kamba, although the eldest son is denoted as the sole heir, he is so only in name, being more of a trustee for his younger brothers. During his lifetime, a man divides his stock among his wives, and at his death, the portion of each goes to her son or sons, a small amount of these portions and the majority

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<sup>288</sup> Hamitic Problem in the Anglo-Egyptian Sudan, loc. cit., p. 656; see Westermann, op. cit., pp. 111–113, for native account of burial ceremonies.

of the father's cattle going to the eldest son of the "big" wife. If the cattle are not numerous enough to buy a wife for each son, they are left with the principal heir until the increase makes it possible for him to procure a wife. Then the second son is provided for, and so on until all have wives, after which the herds are divided as though the entire stock and its increase had been left by the father. Until then the eldest son may not appropriate any of it to his own use. Wives of the deceased are inherited by the eldest brother and son, the brother taking the older wives. These may not be sold but may be given to another man to live with, the offspring, however, being the property of the son or brother who inherited the woman. If she runs away with a third man, the heir may claim full dowry for her.<sup>289</sup> The Akikuyu custom is similar; the sons take the livestock, the brothers the widows. The sisters of the deceased are looked after by his eldest son, and he takes all the movable property when his brothers have been provided with wives by him.<sup>290</sup> The property of the deceased among the Atheraka is divided equally among his sons, but the eldest may get a few more of each kind of animal. These he may not sell under any circumstances, but he may give them away to other members of his father's clan.<sup>291</sup> Among the Wa-Giriama, where there are only a few cattle, the principal property inherited is land and slaves. The land is divided equally among the sons, or, if there are no sons, among his brothers. Women inherit nothing except the ornaments of deceased relatives, while the slaves are given the choice of the son to whom they wish to belong.<sup>292</sup> Among the Masai,

when the father of a family dies, his eldest son inherits all his property, and also the herds and flocks belonging to the childless widows, but not those which are the property of the widows who have sons.<sup>293</sup>

It is the Masai custom for the father to apportion to each of his wives a certain number of cattle, and these are said to belong to

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<sup>289</sup> Dundas, *op. cit.*, Jour. Roy. Anth. Inst., vol. XLIII, pp. 516-517.

<sup>290</sup> Hobley, *Ethnology of the A-Kamba*, pp. 136 ff.

<sup>291</sup> Dundas, *op. cit.*, p. 546.

<sup>292</sup> Barrett, *loc. cit.*, pp. 20-39.

<sup>293</sup> Hollis, *The Masai*, p. 309.

the wives' families, being recognized as the property of their sons, who, however, do not assume ownership until the death of their father. Mothers go to live with their sons, while the childless widows return to their father.<sup>294</sup>

If a man dies childless, his brothers inherit his cattle and his half-brothers inherit his wives. . . . Should a widow have a son by her late husband's half-brother or by another man, the child is given the cattle he would have otherwise inherited had his mother's former husband been alive, and he is considered as belonging to that family.<sup>295</sup>

The sons of the Nandi man inherit his flocks and herds. These are distributed during the lifetime of the owner, among the various wives, each one receiving a certain number to look after and milk. The sons of each wife inherit the animals placed in their mother's charge. The eldest gets the lion's share of the property and also all the cattle lent to the childless wives, unless these have taken charge of step-children, when these receive their shares through their step-mothers. The widows are nominally the property of the next elder or younger brothers of the deceased, but these frequently go and live with their sons, and the eldest son is expected to give each of his father's widows a cow for subsistence. He also looks after his own sisters and receives the cattle given for them when they marry. If the deceased had no sons, his brothers inherit; if no brothers, then his step-brothers, or if none of these, his paternal cousins are his heirs. Daughters inherit nothing but their mothers' utensils and ornaments, although they, with the sons, retain an interest in her garden.<sup>296</sup>

The male children and their uncles, among the pastoral Suk, divide the property of the deceased. The first-born takes most of the father's property while the youngest takes most of what belongs to his mother.<sup>297</sup> A similar condition prevails among the agricultural Suk. The Turkana man leaves most of his property to his eldest son, who takes charge of the division between him,

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<sup>294</sup> Merker, *op. cit.*, p. 195.

<sup>295</sup> Hollis, *ibid.*, p. 309. See also Merker, p. 245, for inheritance among the Wandorobbo, essentially the same in principle as those of the Masai.

<sup>296</sup> Hollis, *The Nandi*, pp. 66 ff.

<sup>297</sup> Beech neglects to state of just what this property consists.

his brothers and his uncles. He also takes the wives of the deceased. If the children are small the uncle acts as trustee until the eldest becomes of age.<sup>298</sup> All the sons inherit in Elgeyo, the estate being divided by the eldest son of the first wife. He inherits more than the second, and he more than the third, and so on, but none of the sons may be neglected. The daughters inherit nothing, but an ox is slaughtered for them as a consolation feast. When a wife dies, her youngest son divides the property she has acquired from her husband.<sup>299</sup> It is attempted to remember all the sons, but the eldest can claim nothing. In this case, also, the daughters get only the consolation feast of an ox.<sup>300</sup> The property of the father among the Wawanga must go to his sons, but he may designate which son is to receive most of the cattle, and it need not be the eldest. The custom of dividing the stock among the wives also obtains here, and ordinarily the children of each wife inherit the cattle allotted to their mother. The marriage-cattle of the surviving daughters is divided among the brothers and used by them in turn to obtain wives. Young and childless widows pass to the brothers of the deceased, and should they refuse to go, the return of the marriage price may be demanded.<sup>301</sup> In his study of the laws of the Bantu tribes southeast of Lake Victoria Nyanza, Charles Dundas goes carefully into inheritance customs. He finds that among the Washamba, the Wakitusika and Wadoe, daughters may inherit, although this is not in agreement with the general custom. Only sons may inherit among the Wachagga, Wapare, Bakumbi, Wangoni, Sumbwe, and Waziguha. Sometimes the eldest brother of the deceased inherits as trustee when the sons are minors, but he is only trustee. Among the Wapare, the eldest son of each wife inherits the stock, and his younger brothers must look to him for assistance. Equal distribution to all the sons prevails among the Waziguha and Sumbwe. The custom of distributing stock to the wives during the lifetime of the husband, and then allowing the sons of each wife to inherit the stock

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<sup>298</sup> Beech, *The Suk*, p. 35.

<sup>299</sup> See above, p. 51

<sup>300</sup> Beech, *Sketch of Elgeyo Law and Custom*, loc. cit., p. 201

<sup>301</sup> K. R. Dundas, op. cit., *Jour. Roy. Anth. Inst.*, vol. XLIII, p. 56.

allotted to her, prevails largely, while if they marry the childless younger widows of their father, they get the stock allotted to them. The eldest son of the chief wife usually receives the largest portion since his mother, the "big" wife, has had the major portion of her husband's stock allotted to her. Distribution by will is not common. The brother of the deceased inherits among the Wanyamwesi, Wadigo and Wakarra, and the son only comes into the property when he has no more uncles living. If there is no son the daughter inherits among the Wanyamwesi. However, this property is not inherited, at her death, by her husband, but by her brother or son. The estate among the Wakwere goes to the mother's brother, but the son of a concubine may inherit from his father; the most capable member of the Banyika family gets the heritage; while inheritance is in the female line among the Wamakonde, the most capable son of a full sister being selected by the man as his heir.<sup>302</sup>

Inheritance among the Waniaturu is mostly concerned with cattle. These are inherited by the sons of the wives who have had them allotted to them for care-taking. The eldest and youngest sons of the chiefs wife get the most, thus the youngest son of a chief wife who had 100 animals would receive 50 head, the eldest 45, the others the remaining five. However, the cattle are not allotted equally to all the wives, the first would get all until a second was taken, when, of a herd of 300, the newcomer would be given 100. The third wife would only get four or five head, the fourth perhaps only one. Thus the youngest son of the first wife would receive over a hundred head at the death of his father, while all the sons of the last wife would have only one animal between them. If the later wives have no sons, their portions are inherited by the son or sons of the first wife.<sup>303</sup> The oldest son inherits most of the estate of the Mgogo, a brother of the deceased being appointed trustee if the children are young. Women do not inherit, but a daughter may get a cow if the estate is large and her brothers and uncles allot it. Of four typical examples of the

<sup>302</sup> Native Laws of some Bantu Tribes of East Africa, loc. cit., pp. 268 ff.; see also Dempwolff, op. cit., for details of inheritance among the Sandawe.

<sup>303</sup> von Sick, loc. cit., pp. 33-34.

division of an estate of twenty cattle given, a sister is noted as receiving one animal in one case, a daughter one, in another.<sup>304</sup>

Turning again to the northwest, the custom among the Bateso is for the estate to pass to the eldest son. Women may inherit, but they seldom do so, although a man may make extensive gifts during his lifetime to a favorite daughter, this property being managed by her husband. The widows live with the heir as his wives, or, if they elect to return to their relatives, the bride-price must be refunded.<sup>305</sup> The heir of a Nilotic Kavirondo is selected by the father before his death, or, should this not be done, by the clan. Such a one need not be the eldest son, and the one selected inherits his father's property and is the head of the family. Women do not inherit.<sup>306</sup> Similarly, the heir of the Musoga is chosen by the clan; he need not be a son of the deceased, but a son is given preference. If, however, a man dies having a large herd of cattle, some are given to each of his children; if there are only a few animals, they go to the heir, who inherits the debts of the deceased as well as his property. Widows may go to the heir, to their sons, or return to their people, as they wish, but in the last case their dowry must be refunded. If a woman decides to marry some member of her late husband's clan, this is permissible.<sup>307</sup> The heir of the deceased is announced, according to the Bagesu custom, at the feast ending the mourning. The property and widows are divided among the members of the clan of the deceased, the heir taking a share with his fellow-members.<sup>308</sup> This power of the clan to name the heir is also to be noted among the Baganda. Even though a man leave directions concerning the disposal of his property, it would avail nothing unless the wishes of the clan-members coincided with his. The widows who had given birth to children were left to care for the grave, but they might remarry if they could prevail on their clans to refund the marriage-fees given for them. The young widows were the

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<sup>304</sup> Claus, loc. cit., p. 60.

<sup>305</sup> Roscoe, *Northern Bantu*, pp. 261, 267.

<sup>306</sup> *Ibid.*, p. 280.

<sup>307</sup> *Ibid.*, p. 232.

<sup>308</sup> *Ibid.*, p. 178.

property of the heir, except those sent to the king or given to other members of the clan. Johnston, however, contradicts this statement by Roscoe, saying that the widows are far from being the heir's property.<sup>309</sup> A tenth part of the estate was usually taken by the clan for itself, and an indefinite number of the cattle left were sent to the king. The remainder belonged to the heir, who adopted the children of the deceased and made them his own.<sup>310</sup> To the west there is a weakening of this power of the clan; the eldest son of the Muhima who has died is appointed heir by it. He inherits cattle; if there be no son, a brother of the deceased married the widows and the first male child born is the heir. If this brother has a large number of wives, he may refuse to marry his brother's widows, and then the women go on living on the milk of the cattle left by their husband, being visited occasionally by their brother-in-law, while any children they may have are called children of the dead husband. When a man inherits children from his dead brother, he takes each child and puts it in the lap of his chief wife, who embraces it; the husband then takes a thong used to bind the legs of restive cattle and ties it about her waist as a midwife ties such a thong about the waist of a woman who has given birth to a child.<sup>311</sup> Property among the Banyoro, comprising cattle and women, is inherited by an heir designated by the deceased while he still lived. He is usually a son, but need not be the eldest.<sup>312</sup>

Among the Waembe, the goods of the dead man are usually taken by the brother, though this procedure may be set aside before death. The villagers are witnesses to an equitable disposal of the effects. If cattle are abundant, the heir turns over a portion of his heritage to his younger brothers, but his sisters get nothing. In the other tribes of this central region, where cattle are not found, the inheritance of goods by women is much more common than elsewhere, as, e.g., among the Anyanja, where the sons and

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<sup>309</sup> Uganda Protectorate, vol. II, p. 695.

<sup>310</sup> Roscoe, *The Baganda*, p. 270.

<sup>311</sup> Roscoe, *Northern Bantu*, p. 113; *Jour. Roy. Anth. Inst.*, vol. XXXVII, pp. 103-104.

<sup>312</sup> Roscoe, *Northern Bantu*, p. 26.

daughters usually divide the property of their father, or among the Wa-Yao, where a woman leaves her property to all her children.<sup>313</sup>

The Mwila ordinarily tries to select his heirs and apportion his goods before his death to obviate dispute. Among headmen, the heir is always a man, who "eats the name" of his predecessor, but among the commoners it may be a woman. Land, being held communally, is not touched by this question. Wives, cattle, slaves, and some personal belongings are inherited. The widows are taken by the heir. If there be many, he may take three or four, and allow one to go to a nephew of the deceased, and one to his son. Slaves follow their mistresses; they are inherited with the wives to whom they have been assigned, and then are distributed like the cattle. Of these, most are taken by the heir, then the nephews, children, and younger brothers of the deceased take some.<sup>314</sup> The custom among the Vandau is somewhat different. Inheritance goes by relationship; the eldest son of the first wife, or of the next if the first have no son, gets the larger portion, but the cattle are inherited by all the children in part. None is left entirely unremembered. The brothers of the deceased get some also if there are enough, but the sons must be cared for first. There are no testamentary bequests, but the amount each individual receives varies with the strength of his personality. Girls do not inherit; if they are old enough, they would be married and thus the property would go outside the family, to their husbands. If they are young, they are cared for by their brother, and their dowries are used to furnish lobola for their younger brothers.<sup>315</sup>

Junod remarks that the most important part of the property left by a man are his widows, and that when they have been distributed the minor possessions are adjudicated. These consist of the various implements he used. However,

As regards oxen, money, they have already been remitted to a younger brother, or, in his absence, to his sons.<sup>316</sup>

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<sup>313</sup> Gouldsbury and Sheane, *op. cit.*, p. 59, Werner, *Brit. Central Africa*, pp. 167 ff.

<sup>314</sup> Smith and Dale, *op. cit.*, vol. I, pp. 391-392.

<sup>315</sup> Simango.

<sup>316</sup> *Life of a South African Tribe*, vol. I, p. 208.



Women never inherit; when only female relatives survive, they may receive something, but

the valuable property must be kept by them for their sons. . . . Why? Because, in the intuition of the Thonga, a woman is not capable of possessing; she is not able to build an oxen kraal, and to repair it: how should she possess oxen?<sup>317</sup>

Real estate, in theory, belongs to the chief, who allots it to his subjects to work. At their death, it is inherited by their sons, but on the death of a man his wife works it, while her son does not take it for his wife until his mother dies.<sup>318</sup> In answer to a question as to inheritance, Cetywayo, ex-king of the Zulus, remarked that wives go to the brothers and relatives of the deceased, while regarding cattle, he said,

His principal property is left to the son of his chief wife, and the rest is distributed among the others. If he is an important chief then some of his cattle are given to the king, and the larger part of the property goes to the heir, the rest being divided amongst the other sons according to their position.<sup>319</sup>

The land which the father used belongs to the heir, the son of the chief wife. The eldest son represents his father, and the younger sons live near him.<sup>320</sup> The unmarried daughters are looked after by the heir, but if a father wishes, he may "allot" certain daughters to certain of his sons during his lifetime, and in this case this particular son receives the cattle given for his sister when she is married. If this has not been done, they go to the heir. Provision is made for the other sons, and the chief son is bound to respect his father's wishes when he comes into his heritage. Cetywayo added that<sup>321</sup>

The son of the chief wife is "de jure et de facto" the owner of the father's property, but in each kraal (barring the one in which the chief wife lived) one of the heir's brothers lives, and looks after the kraal for his brother the heir.

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<sup>317</sup> *Ibid.*, vol. I, p. 209.

<sup>318</sup> *Ibid.*, vol. II, p. 6.

<sup>319</sup> Native Laws and Customs Comm., 1883; Minutes of Evidence, p. 523, q. 124.

<sup>320</sup> *Ibid.*, p. 527, q. 225 ff.

<sup>321</sup> P. 531, addition to q. 225.

Perhaps the most complete account of inheritance customs available for any African people is that of Umpengula Mbanga, recorded and translated by Bishop Callaway.<sup>322</sup> There are the houses of the chief wife, the second and third wives, of the hereditary estate, i.e., whose marriage portions have been paid from cattle inherited from their husband's father. The eldest son of the chief wife inherits these cattle and is the head of the family as regards these houses, having the say as to the disposition of the widows acquired with the cattle of the estate, and receiving the cattle given as dowry for their daughters. But if a man acquire cows independently of his father's estate, and marry with these, he starts another house, and the eldest son of the first wife acquired with these cattle of his own inherits them, and also similar prerogatives with regard to any further wives obtained with the offspring of such cattle; the heir of the hereditary estate cannot inherit this property unless there is no male offspring from the independent line, nor can the independent heir inherit the entailed estate unless there are no sons to inherit it.<sup>323</sup>

Sir T. Shepstone, testifying before the Commission of 1883 and referring to the Kaffirs and Fingoes, said that the only heritable property is cattle; that wives are not to be really understood as such.<sup>324</sup> Among these people, there are usually three principal wives, and later wives are assigned to one of the "houses" of these three. To each house, also, are allotted cattle, and the eldest son of each is heir to these. The eldest son of the great wife is universal heir, and head of the family.<sup>325</sup> In the Notes by Mr. Warner, we learn that, in addition to the customary disposal of cattle in the manner mentioned women inherit nothing, themselves being property, a view which conflicts with that of Sir T. Shepstone. The eldest son of the chief house rules as to their remarriage, and he has similar power in the case of his unmarried sisters and half-sisters, whose lobola he receives. The only

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<sup>322</sup> *Op. cit.*, vol. I, pp. 256 ff., also quoted by Jenkinson, *op. cit.*, pp. 34-49.

<sup>323</sup> See particularly note 13, p. 258, for the "houses" of a man; the meaning of the text is often obscure.

<sup>324</sup> *Minutes of Evidence*, p. 46, q. 771 ff.

<sup>325</sup> See also *Natives of South Africa*, and Casalis, *op. cit.*

inheritable land is that which has actually been under cultivation, and Mr. Warner, as well as most other observers, remarks that the principal property handed down is livestock.<sup>326</sup>

The cattle complex manifests itself in numerous taboos and other customs connected with the care and milking of cattle, the use of milk containers, and the regard which some tribes in the northern part of the East African area have for grass. The Dinka feel that cows should be milked by boys and girls who have not reached puberty, and although men may do this work in case of necessity, it is not considered desirable, even if the man be old and past the age for sexual intercourse. Menstruating women may not drink milk, nor may the relatives of a dead person while they sleep near the grave.<sup>327</sup> The women usually drink milk flavored with cow's urine, but the men drink it unadulterated.<sup>328</sup> All the Nilotic tribes mix cow's urine with milk when they drink the latter, and make butter from milk, using it chiefly as an ointment.<sup>329</sup> The custom among the Suk is for the women, children and uncircumcized boys to milk the cattle, and to wash their hands in the urine of the animals. To eat milk and meat on the same day is regarded as dangerous throughout this region while if anyone chews raw millet he may not drink milk for seven days. Fish are eaten by pregnant women and the poor, but a cattle-owner would not touch them, for if he did so, the milk of his cattle would dry up. If there is an epidemic, an ox is killed and entirely consumed; the bones and refuse are burned.<sup>330</sup> The Suk woman, during pregnancy, lives principally on the milk of a cow specially set aside for her use.<sup>331</sup> If, on a raid, a man who has

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<sup>326</sup> MacLean's *Compendium*, p. 72. See also testimony of Bishop Callaway, *Native Laws and Customs Comm.*, 1883, *Minutes of Evidence*, p. 403, q. 7269 ff., for Kafir inheritance, and Meinhof, *Afrikanische Rechtsgebräuche*, pp. 126-131, (quoted from A. Kropf) for that of the Xosa Kafirs.

<sup>327</sup> Seligman, *op. cit.*, *Jour. Roy. Anth. Inst.*, vol. XLIII, p. 656. Women may have nothing to do with cattle among the Shilluk; Westermann, *op. cit.*, p. xxix.

<sup>328</sup> Gleichen, *op. cit.*, vol. I, p. 145.

<sup>329</sup> Johnston, *Uganda Protectorate*, vol. II, p. 777; Westermann says the Shilluk only use cow's urine for washing the milk containers, *loc. cit.*

<sup>330</sup> Beech, *The Suk*, pp. 9-12.

<sup>331</sup> *Ibid.*, p. 22.

grass on his head is encountered, he may not be touched, while if the women of an enemy kraal can pour milk on the raiders, no one in that particular kraal may be killed. In a note to this statement, Beech remarks that it illustrates "the magic efficacy of aught to do with cattle."<sup>332</sup>

Milking among the Nandi is done by boys and girls. Only certain gourds and calabashes may be used for milk; anything else is considered injurious to the cattle, which are fumigated in the smoke of a particular wood to give the milk a flavor greatly desired by the natives. Butter is made by the women, who use it to oil their bodies. The meat-and-milk prohibition is very strong among the Nandi, where they may never be consumed except within twelve to twenty-four hours of each other.<sup>333</sup> The Masai, as most of the people in this region, are very fond of drinking the blood of the cows. It is drunk while still hot, and is obtained by shooting a blocked arrow into one of the veins of the animal's neck. The blood is thought to be a cure for dysentery, but is chiefly valued as a delicacy.<sup>334</sup> The warrior eats cattle killed in the bush, but specified portions must be taken to his father, his father's wives, and the young women.<sup>335</sup> The people in the kraals, in contrast to the warriors, eat all kinds of vegetable food, especially at times when the cattle are diseased, purchasing this food from neighboring peoples, since they themselves are not agricultural. Their favorite food, however, consists of milk, meat, and blood.<sup>336</sup> Warriors may not have milk and meat on the same day, and must take a purgative before eating or drinking the one after having partaken of the other.<sup>337</sup> Then, too, the Masai regard the food of their cattle with affection: "Now cattle feed on grass, and the Masai love grass on this account."<sup>338</sup> When there is a drought,

<sup>332</sup> *Ibid.*, p. 25.

<sup>333</sup> Hollis, *The Nandi*, p. 25.

<sup>334</sup> Merker, *op. cit.*, pp. 168-169; see also H. H. Johnston, *Uganda Protectorate*, vol. II, p. 818.

<sup>335</sup> Merker, p. 169.

<sup>336</sup> *Ibid.*, pp. 32-33.

<sup>337</sup> Hollis, *The Masai*, p. 284; see also Merker, p. 33. The assumption is that eating the two together will make the cows ill.

<sup>338</sup> Hollis, *op. cit.*, p. 288 ff.

the women fasten grass on their clothes and pray for rain; if a warrior beats a boy and the boy tears up some grass, he will stop beating him. If a Masai wishes to make peace with his enemy, he holds out some grass to him; when a group move from one kraal to another, they tie grass on their gourds; the respect for grass, the food of the cattle, manifests itself in these numerous ways.

According to Claus, the climate in Ugogo is such that prolonged droughts occur; and in this event, the young calves are the first to die, since their mothers do not give sufficient milk. It is then, also, when the last grain has been eaten, that the natives drink the blood of the cows, and this custom of drawing off blood from live cattle, we are told, was learned from the Masai.<sup>339</sup> Milk is drunk mixed with urine, which sours it. A little fresh milk is drunk at meal-times, but it is usually preferred sour. Butter is made in a hanging churn, and the buttermilk is drunk, while the butter itself is put away and part used as an addition to vegetables and soup, part for anointing the body and clothing.<sup>340</sup> The animals of the Waniaturu are also bled by means of a blocked arrow, and they drink the blood either flavored with salt or mixed with milk and butter.<sup>341</sup> Milking, in Ushambaa, is done by the men. Women may not drink milk, and, except in the case of the first milk taken after calving, when the milk is cooked and drunk at once to prevent souring, milk is usually allowed to sour. Much of it is made into butter, and the buttermilk remaining after the churning is prized. There is the fear of mixing meat and milk together in the stomach, and the Mschambaa is afraid to deliver milk to his European neighbor lest he eat the milk with meat and thus lead to the death of the cow which gave the milk. Blood is taken from the necks of the animals in the same way as the Masai take it, but is not drunk hot, but cooked and seasoned with salt. It is much prized as a delicacy.<sup>342</sup> Among the A-Kamba, milking is done only by women, while cow's blood is a favorite

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<sup>339</sup> Loc. cit., pp. 13-14.

<sup>340</sup> *Ibid.*, p. 23.

<sup>341</sup> von Sick, loc. cit., pp. 17-18.

<sup>342</sup> Eichhorn, loc. cit., pp. 101-102.

medicine for the sick.<sup>343</sup> When two men of the Atheraka wish to form a close friendship, they make an exchange of bulls, and this is essential before a blood-brotherhood can be formed.<sup>344</sup> Women of the Bantu Kavirondo may not eat the meat of fowls, sheep, or goats, and may not drink milk, though they may use it in a kind of soup mixed with flour and meat.<sup>345</sup>

Among the Busoga there are numerous taboos when a cow calves, and a male member of the family is told off to drink the milk of that cow, until the navel-cord of its calf falls off. He may eat no salt, nor may he drink the milk of any other cow. Women may not come in contact with cows at all, and must not under any circumstances milk or herd them; they may churn, and wash the milk-vessels and smoke them.<sup>346</sup> The girls of the Bagesu may herd cattle with the boys until they reach puberty, and even married women may be found doing this work if the husband is in the field and no one else can be found to do it. There are no restrictions placed here upon the contact of women with the animals, and either men or women may milk them, while porridge is made of grain boiled with milk.<sup>347</sup> The wealthier classes of the Baganda used milk as a luxury, eating it after it had clotted, and rarely drinking it fresh. The herds were kept at a distance, and the milk was brought by the herdsmen.<sup>348</sup> Special pots were used for the milk, and these were the hardest to make, and the most decorative. Here, too, the people objected to any but pottery vessels for holding milk on the ground that tin or iron ones would harm the cattle. A menstruous woman might not come in contact with milk-vessels, nor drink milk until she was well. There was also a fondness for the blood of cows. It was often drunk alone, hot, but also often mixed with milk, and sometimes cooked with a mixture of butter and fat.<sup>349</sup> The first butter churned from the milk of a cow after its calf was born was used to smear on fetiches

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<sup>343</sup> Charles Dundas, *History of Kitui*, loc. cit., p. 502.

<sup>344</sup> *Ibid.*, p. 547.

<sup>345</sup> Johnston, *Uganda Protectorate*, vol. II, p. 737.

<sup>346</sup> Roscoe, *Northern Bantu*, p. 236.

<sup>347</sup> *Ibid.*, p. 168.

<sup>348</sup> Roscoe, *The Baganda*, p. 440.

<sup>349</sup> *Ibid.*, p. 421.

and not used in cooking or to smear on the body. The customs when a cow calved were similar to those in Usoga; no member of the family might drink the milk for the first four days; after that the herdboys took the cow and calf and showed them to his fellows, and the first milk from the cow was boiled into a cake, which they all ate. No one might drink milk without fasting a few hours before he ate beans or sugar-cane, or drink beer or smoke Indian hemp, nor might anyone boil milk.<sup>350</sup> This taboo against boiling milk is also found in Ankole, and is considered dangerous to the animals, except when it is boiled ceremonially after the umbilical cord falls from the new-born calf. Until this occurs, a member of the family of the owner is set aside to drink the milk from the mother of the calf, and it is taboo to all others. The food of other animals, and vegetable food, is not regarded with favor, and a fast of several hours must be observed after eating it before milk may again be drunk. Among these people, men and women are discouraged from using water, especially for washing. A bath consists in rubbing the body with a mixture of clay and butter; water applied to the body is thought to injure the cattle of the one who applies it and also his family.<sup>351</sup> Women must not come in contact with the herd, but may only wash the pots and churn. There is a time interval observed between the eating of beef and drinking of milk, and no vegetable may be eaten with the beef. Unlike the Baganda, they prefer their milk fresh, and if it has soured, they put it in the churn and make butter from it.<sup>352</sup> The only milk a woman may drink during her menses is that of an old cow past bearing; if her husband cannot procure such a cow for her she eats vegetables, for to drink the milk of the other cows, it is believed, would injure the animals, and especially impair their generative powers.<sup>353</sup> There is also a reluctance to put milk in tin or iron vessels, only wooden or pottery vessels or gourds being employed for this purpose, for to use the former kind

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<sup>350</sup> *Ibid.*, pp. 418-420.

<sup>351</sup> Roscoe, *Northern Bantu*. p. 137.

<sup>352</sup> Roscoe, *op. cit.*, *Jour. Roy. Anth. Inst.*, vol. xxxvii, pp. 100-101.

<sup>353</sup> Roscoe, *Northern Bantu*, p. 109.

would injure the herd. There is also the daily fumigation of the milk-containers.<sup>354</sup>

The vessels of the Banyoro are also wood or gourds, which are washed and held over a smoke-fire every day. They are washed in cow's urine, and metal vessels are regarded as pernicious. Women do the churning when possible, though it can be done by a man, and the butter is used for anointing the body. Milk may not be cooked. Those who drink milk are careful not to eat vegetables for about twelve hours before, for if they had these two foods in the stomach at the same time it would harm the cows. Women, during their menses, observe the same restrictions as noted above, and for the same reasons. For this period, the women remain apart from their husbands, and are careful not to touch anything belonging to them and especially not to touch any milk-vessels.<sup>355</sup> In Karagwe the cattle were valued for the milk they gave, and for the butter, which was used for anointing the body. We are not told whether the milk was drunk fresh or allowed to sour.<sup>356</sup> In Kisiba, similarly, the cattle are not slaughtered, but the Wasiba have no objection to eating animals which have died of disease. They are bred for their milk and butter. The former

is only used as food when curdled, the butter is employed only for rubbing on the body and greasing bark and other cloths. Butter also forms an article of trade, and is made up into large balls and packed in banana leaves. . . .<sup>357</sup>

The manufacture of vessels used in milking and in storing milk is a flourishing industry in all the western Nyanza tribes.<sup>358</sup> Among the Wasindja, beef is rarely eaten, because of the great value of cattle, but they relish the milk, which is drunk as curds and whey, and keep the butter.<sup>359</sup>

Little mention is made of such customs in the literature on the tribes of the central portion of our region. Since it is so difficult

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<sup>354</sup> *Ibid.*, p. 106; Jour. Roy. Anth. Inst., vol. xviii, pp. 96, 100.

<sup>355</sup> Roscoe, Northern Bantu. pp. 42, 66-67.

<sup>356</sup> Kollmann, op. cit., p. 50.

<sup>357</sup> *Ibid.*, p. 87; see also Rehse, op. cit., pp. 47-49.

<sup>358</sup> *Ibid.*, pp. 88-89. On p. 78 is presented a reproduction of the hanging-milk vessels used by the king, and their prominent place in his hut is shown on p. 73.

<sup>359</sup> *Ibid.*, p. 126.



to keep stock here, it is not strange that slight attention is given to cattle taboos and ceremonies. Johnston remarks on the drinking of milk, saying it

is a favorite food in northwest Nyassaland. It is also drunk in the Awemba country, and round Lake Bangweolo. On the other hand it is disliked or ignored by the Yao and A-nyanja peoples. No tribe within the confines of this territory makes any form of butter or ghi out of milk except the Arabs and their followers.<sup>360</sup>

The Wenya boys herd their cattle close to the kraal. The women may on no account milk the cattle or touch the udder of a cow, "a superstition found also among the Wankonde and the Zulu."<sup>361</sup> The Ba-Ila prefer their milk sour, and are fond of whey and curds. The women churn the butter, and it is used for anointing the body quite as much as for cooking and eating, if not more so.<sup>362</sup> Here, as elsewhere, menstruating women may not touch the vessels used for food, milk, or other purposes, and it is believed that if a woman in this condition should go where the tse-tse flies abound and allow them to bite her, they will disappear from this place.<sup>363</sup> The Thonga regard milk as an important food. It is not drunk sweet, but is left to sour, the hard portion being eaten and the whey drunk. A woman during her menstrual period may not drink milk, nor during her confinement, nor until the ceremony of presenting her child to the moon has been performed. We see again the taboo on milk from a cow which has calved, until the umbilical cord of its calf shall have fallen off. Its milk cannot be mixed with that of other cows, but it can be boiled and consumed by children. Otherwise, milk is never boiled; there is no taboo against it, but it is not customary.<sup>364</sup> The actual herding is done by the older boys, and the women may have nothing to do with the cattle. If a woman wants dung with which to smear her hut, she must send little children or girls who have not yet reached puberty, or are, at any rate, unmarried. When oxen are

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<sup>360</sup> British Central Africa, p. 437.

<sup>361</sup> Gouldsbury and Sheane, op. cit., p. 305.

<sup>362</sup> Smith and Dale, op. cit., vol. I, pp. 128-132.

<sup>363</sup> *Ibid.*, vol. II, p. 27.

<sup>364</sup> Junod, *Life of a South African Tribe*, vol. II, pp. 50-51.

sick they are entrusted to the care of two little girls, who must stay with them until they are well without returning home.<sup>365</sup> Women are not allowed, among other things, to eat ox-hoofs, nor cooked blood of oxen. Nubile girls, during the period of their menses, must not approach the kraal nor look at the oxen, for the cattle might suffer, and be attacked by a bad cough.<sup>366</sup>

Similar customs prevail throughout the southern portion of East Africa. Among the Zulu, Kafirs, Basuto, and other peoples of this region, we find that though women may occasionally own oxen, they are not identified with the cattle, and in many places, are not supposed to touch them or have anything to do with them until the milk is distributed. Among the Kafirs, the milking is done by a young man, who strips for the work, and there seems to be no aversion to metal containers for the milk. When milking is finished, the milk is taken into the hut, and put into the milk sack or calabash. This is never cleaned out, and there is a strong ferment which makes the milk clot immediately, for fresh milk is never drunk except by children. As among the Thonga, the calabash is plugged at the bottom so the whey may be drawn off and drunk. The women may not on any account touch the milk sack; should they do so, it is believed the cattle would die, and the woman who touches the sack is accused of witchcraft.<sup>367</sup> Mr. Ayloff, in his remarks on the food of the Kafirs, however, says that only one man may touch the milk bag, one reason for this being the fear that the Kafirs have of being poisoned, and the other being that this person will see that the proper amount of milk is left in the sack to cause rapid fermentation when the new milk is put in. The sour milk "forms the chief article of food for all classes, who sometimes for months together use no other."<sup>368</sup> At the time of a girl's first menstrual period, she comes to her kraal with much care to avoid people and the sun, and when she reaches there all the girls rush into the cattle kraal and select the finest ox, which they prepare to slaughter for a feast. After

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<sup>365</sup> *Ibid.*, vol. II, pp. 49-50.

<sup>366</sup> *Ibid.*, vol. I, p. 185.

<sup>367</sup> Kidd, *op. cit.*, p. 59.

<sup>368</sup> MacLean, *op. cit.*, p. 152.

much bargaining, the men prevail on them to select a less valuable one, and this is killed. The girl is shut in her hut for a period of about two weeks; she may not drink milk, nor may her "special maidens," for should they do so, the cattle would die.<sup>369</sup> There is also a custom variously termed *Ukuhlonipa* and *Hlonipa*.<sup>370</sup> According to this, the woman at marriage is

required to *hlonipa* her father-in-law, and all her husband's male relatives in the ascending line; that is, to be cut off from all intercourse with them.<sup>371</sup>

It does not apply to the husband's collateral relatives. Women related by blood to the owner of a kraal may cross the cattle-fold, but not those who come within the forbidden relation, and there may be seen in all Kafir settlements circuitous paths taken by the women to avoid stepping across the forbidden place. No strange woman, nor anyone coming within this relationship, may touch the milk-sack or go anywhere the cattle are accustomed to go, for should such a woman lose a drop of blood on the path and the cattle go over it, the animals would, very probably, die of disease.<sup>372</sup> Similarly, people related to a man will not drink milk at any kraal belonging to relatives of his wife, and vice versa.<sup>373</sup>

## 6.

The fondness of the African tribes for settling their disputes by recourse to courts is well known. Penalties for theft, murder, adultery, and other offenses are apparently fixed and understood by these courts; and, in general, the parties to a dispute abide by the decision of the court, even where machinery of enforcement seems to be lacking. The attachment of the natives to their courts is such that the Europeans have found it difficult to induce natives to bring their cases before the courts of the government.<sup>374</sup> Among

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<sup>369</sup> Kidd, op. cit., p. 209.

<sup>370</sup> MacLean, op. cit., pp. 95-97; Holden, op. cit., ch. xviii, pp. 368 ff.; Kidd, op. cit., pp. 236 ff. See also Leslie, op. cit., p. 167 ff., "The Native Custom of 'Hlonipa'."

<sup>371</sup> Holden, p. 368, op. cit.; MacLean, p. 95.

<sup>372</sup> Kidd, op. cit., p. 238.

<sup>373</sup> MacLean, op. cit., p. 96; Holden, op. cit., p. 369; Kidd, op. cit., p. 240.

<sup>374</sup> See, e.g., the testimony of natives concerning lawyers and the courts of the Europeans given before the South African Native Affairs Comm., of 1903-4:

tribes with a strong cattle complex, much of the work of the native tribunals concerns cases in which these animals are involved.

Among the Kafirs, cases are tried just outside the cattle-kraal, or close to the village gate.<sup>375</sup> There is usually a chief councillor to the king, a judge, and the kraal of this man is a place of refuge, to which a man may flee until his case is adjusted.<sup>376</sup> Among the cases which occur, two classes may be distinguished. In criminal matters, there are murder, homicide, assault and the like; homicide may be atoned for by payment of seven to ten head of cattle, assault by five or six head, rape, abortion, and other crimes by payments of varying numbers of animals. Adultery and seduction have already been mentioned. "The stealing of live-stock is the most important case in Kafirland," and fines of as much as ten head for every one taken are allowed.<sup>377</sup> The Thonga have similar legalistic bias, and the men will sit for hours and days settling the question of payment of a debt. "To regain the possession of a miserable head of cattle they are willing to lose whole weeks!" remarks M. Junod.<sup>378</sup> Cases involving lobola constitute about ninety percent of all civil cases, while most of the remainder concern contingencies which may arise regarding cattle or their equivalent.<sup>379</sup> As to the compounding of criminal cases, Junod's notes are in terms of pounds sterling; obviously here is white influence. Among the Basuto,

Des amendes en bétail sont les punitions les plus communes.<sup>380</sup>

The members of the Ba-Ila *lubeta* decide cases brought before them and award fines and damages, "these vary from the payment of twenty head of cattle for homicide to the ox-calf paid in compensation of minor cases of *buditazhi*."<sup>381</sup> The institution of courts is highly developed in the central region of East Africa, and,

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<sup>375</sup> Kidd, *op. cit.*, p. 352.

<sup>376</sup> Natives of South Africa, p. 25.

<sup>377</sup> MacLean, *op. cit.*, Mr. Warner's notes, pp. 61-65.

<sup>378</sup> Life of a South African Tribe, vol. I, p. 309.

<sup>379</sup> *Ibid.*, vol. I, pp. 266, 413, 476.

<sup>380</sup> Casalis, *op. cit.*, p. 241.

<sup>381</sup> Smith and Dale, vol. I, p. 359. See pp. 392 ff. for details of a number of actual cases.

though reference is made to fines and other punishments, there are no specific statements given as to what constitute these.<sup>382</sup>

Roscoe states that among the Banyoro

cattle lifting was one of the most common crimes among the pastoral clans. The thief, when caught, had to restore the number of animals stolen and was fined twice the number he had stolen.

The king headed the court of final decision, and took one-fifth of whatever fine was imposed. Murder was punished by death, homicide was compounded, and other crimes variously adjusted.<sup>383</sup> The Baganda, as might be expected, had a highly complex system of courts. Death was an ordinary punishment for many crimes, and these people used imprisonment and mutilation. Fines were levied in cowry-shells, bark-cloth, sheep or cattle, depending on the crime and the resources of the individual.<sup>384</sup> To the east, the A-Kamba reckon compensation for bodily harm or homicide in terms of cattle, and fines are also levied as cattle. Thus, a man who has lost a leg through another's fault receives one bull and one goat; accidental killing is compensated by payment of seven cows, and one bull for a man, four cows and one bull for a woman. A murderer must pay thirteen cows, two bulls and one goat for a man; for a woman, six cows, two bulls, and one goat. The bull or goat, always a part of the compensation, is used for a sacrifice; thus, when the animals for compounding a murder are given, one of each kind is killed in the village of the murdered man, and these are the first of the total to be paid. They are eaten in a certain way; the cow is not killed but is given to the widow, who may not dispose of it. After the murderer has collected, by whatever means he can, the rest of the amount due, the other bull is slaughtered and eaten ceremonially. The cows are divided according to custom, and none of them may be sold or disposed of.<sup>385</sup> A debt, among many of these peoples, is inherited with an

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<sup>382</sup> Coxhead, *op. cit.*; Werner, *op. cit.*, Johnston, *British Central Africa*; Gouldsbury and Sheane, *op. cit.*, ch. iv, pp. 48 ff., give the most satisfactory account.

<sup>383</sup> Roscoe, *Northern Bantu*, pp. 23-36.

<sup>384</sup> Roscoe, *Baganda*, pp. 260 ff.

<sup>385</sup> C. Dundas, *History of Kitui*, loc. cit., pp. 512-513; Hopley, *Ethnology of eth A-Kamba* pp. 78 ff.; Lindblom, *op. cit.*, pp. 143 ff.

estate, and many of the cases coming before East African courts concern these amounts, of cattle or other articles, owed for several generations.<sup>386</sup> In his exhaustive study of the laws of the Bantu tribes southeast of Lake Victoria Nyanza, Dundas is primarily interested in the laws as such: his remarks touching on the cattle complex have already been quoted in connection with the discussions of marriage and divorce. The lack of full description as to what constitutes compensation and what is done with it when paid makes it difficult to utilize his admirable article in the present discussion.<sup>387</sup> The Masai exact compensation of three cattle for each one stolen. Compensation for murder is taken after two years by the murdered man's brothers, who lift the cattle of the murderer as they would in a raid. A ewe is given if one tear the lobe of another man's ear, a heifer if more serious injury is inflicted. Adultery committed with an older woman requires a fine of two oxen.<sup>388</sup> Merker places compensation for the murder of a man at from two hundred to three hundred head of cattle, and says that after one or two months the murderer may be free from fear of blood revenge, and may set about gathering compensation.<sup>389</sup> The brothers of a murdered Nandi try to steal the murderer's cattle as do the Masai; if they cannot do this, but find him, they kill him; if they can do neither, the old men after a time arrange compensation. If a man be victim of assault, the attacker must provide him with food until he recovers from his injury, and slaughter oxen and goats for this purpose. Theft is severely punished, and torture, death, and forfeiture of crops and herds result from repeated offences.<sup>390</sup> The Dinka of Bor have a weaker judicial bent:

The fine of one cow appears to be sufficient for any crime from murder downwards. Capital punishment is never awarded. In case of theft, the miscreant, . . . is merely ordered to restore the stolen property.<sup>391</sup>

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<sup>386</sup> C. Dundas, *op. cit.* pp. 515 ff.

<sup>387</sup> *Op. cit.*, Jour. Roy. Anth. Inst., vol. LI, pp. 220 ff.

<sup>388</sup> Hollis, *The Masai*, pp. 310-312.

<sup>389</sup> Merker, *op. cit.*, p. 206.

<sup>390</sup> Hollis, *The Nandi*, pp. 73 ff.

<sup>391</sup> Gleichen, *op. cit.*, p. 144.

The Beri have sterner laws: the penalty for murder is death, while a boy must be given the family of a man accidentally killed. Thefts of cattle must be repaid on pain of exile. For adultery one cow, five sheep and five iron hoes are given.<sup>392</sup> The Shilluk king had power of final decision in cases coming under the fixed unwritten code. Cattle thieves, if caught in the act, were killed on the spot by the owner of the cattle. If an escaped thief was located, and refused to give up the stolen property, he was brought before the king for punishment. If a man was convicted of murder, he was sometimes led about the village with a cow-rope about his neck, and then hanged.<sup>393</sup>

The subject of East African legal organization is sufficiently vast for special investigation. Like the other cultural elements discussed, it is tinged by the prevalent cattle complex, and thus it is that in the most serious cases, the fines take the form of cattle. Criminal cases, and those involving disputes as to dowry, inheritance or debts, fill the time of the African councils. It is apparent, then, that in East Africa, in this aspect of culture also the cattle complex exerts its strong influence.

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<sup>392</sup> *Ibid.*, p. 147.

<sup>393</sup> Westermann, *The Shilluk People*, p. XLVII.

(To be concluded)

## THE BASIS OF SOCIAL ORGANIZATION IN AUSTRALIA

BY D. SUTHERLAND DAVIDSON

THE Australian aborigines have attracted a great deal of ethnological interest. The information obtained and presented is not only great in volume but also considerably diversified in contents. Unfortunately, however, the highly developed social organization of these people has been found to be so complex and specialized, with many consequently disputed aspects, that investigators, in most cases, have explained this condition in expressing their focal viewpoints, but in their surveys have almost invariably ignored the little developed but nevertheless important topics of material culture as well as the economic aspects of Australian life.

Controversies have arisen over the various theories advanced concerning the origin and development of many of the social patterns. After being argued and finally settled to the apparent satisfaction of some, they come forth subsequently only to be reconsidered by other investigators, with the result that the entire subject has again been precipitated into chaos. It is evident, therefore, that if ever we are to arrive at any intelligent understanding of the controversial points, it is necessary that more fundamentals of Australian culture should be determined; that cases of chronological precedence be analysed and understood, and that the higher institutional complexities, which are so common and unique in Australia, be reconstructed upon a sounder basis of consideration and less upon theoretical analogies derived from conditions in other regions of the world.

Australia, it seems, should be studied more as a unit and its fundamentals determined without prejudice toward already existing theories applicable to other continental areas. When the history of aboriginal Australia, then, has been systematized and, if possible, chronologically arranged, its material may be taken and compared, phase by phase, with the corresponding manifestations of other regions.



A great many writers in the past have dealt with the problem of social organization among the Australian blacks. They have erected a structure upon what I propose to show to be an unstable foundation, for they have failed to start at the bottom. They have commenced their study where their particular problem itself commenced, disregarding the possible background out of which it might have developed. For instance, almost all of the Australian tribes have been found to be organized into a system of either two, four or eight classes. There were, however, several groups of people of a different social composition where, indeed, no class organization whatsoever has been found. Now, approaching the question from this angle, it becomes evident and fairly demonstrable that at some time in Australian history there may have existed a period when the class system had not yet developed.

Howitt, for instance, insists that the two-class system was the fundamental state from which all of the rest have evolved.<sup>1</sup> In fact, he has arranged a progressive series in which he starts with the matrilineal two-class Dieri, runs the entire gamut of two-four- and eight-class tribes and finally reaches the apex of his social ladder with the paternally descended no-class Kurnai of Gippsland. It should not be inferred from this, however, that he means to point out that the Kurnai before arriving at their present type, passed through the four- and eight-class systems. He specifically says:

The division of the people of the tribe into two classes is the foundation from which the whole social organization of the native tribes of Australia has been developed.<sup>2</sup>

Another passage reads:

The progressive alteration of the two-class organization has been in two divergent directions. In one the classes have been segmented, producing four subclasses in certain parts of Australia, and eight in other parts by still further segmentation. The alteration in the other direction has been caused either by the production of an anomalous system of class and totem, or by the extinction of the class system altogether, in which case the local organization usually regulates marriage.<sup>3</sup>

<sup>1</sup> Howitt, A.W., *The Native Tribes of Southeast Australia*, London, 1904. Pp. 42-3.

<sup>2</sup> *Op. cit.*, p. 43.

<sup>3</sup> *Ibid.*, p. 90; Spencer, B., *The Native Tribes of the Northern Territory of Australia*, London, 1914, p. 42.

A good example of Howitt's reasoning is again illustrated by the following:

The Kurnai is a tribe without class divisions. There is, therefore, no social organization in the sense in which that term is used by me, and the local organization . . . controls marriage insofar that it can only properly take place between members of certain reciprocating localities.<sup>4</sup>

The question arises whether the Kurnai ever had a class system, or whether, having had one, it has died out. There is no direct evidence of the former but I think that a fair case can be made out of the latter assumption. Similarity of language points to the Kulin tribes as the stock from which the Kurnai were an offshoot. Tradition and legend both point to the Bunurong or the Wurunjuri being the parent stock.

Farther on:

To judge from the similarities of language, from tradition and from common customs, the Kurnai may be considered an offshoot of the Kulin and to have probably carried with them the Kulin class system.

It is not difficult to understand the logic of Howitt when it is realized that he took the two-class system as basic for all of Australia. This position, however, he was forced to adopt because of his association with Morgan's school, with the consequent adherence to the theory that a matrilineal state must have preceded a patrilineal system. Therefore, assuming his viewpoint, since the tribes with which he was acquainted, having a no-class organization, were paternal in descent, there was no alternative for him but to consider them as the acme of development when compared to the two-class tribes, some of which reckoned descent on the maternal side.

Let us take an example of his argument from the case of the Kurnai and Kulin, two tribes on the southeast coast. The Kurnai are reported to have a no-class grouping, while the Kulin have two classes with paternal descent. The Kurnai were distinctly a coast group but the Kulin, although extending to the sea, were primarily inland people to the west and north of the Kurnai.

It is important to note that the Kurnai, like every other group which lacked the class organization, existed along the margin of the continent. In almost every instance they were contiguous to a two-class tribe. These classless tribes were not only on the south

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<sup>4</sup> Howitt, *op. cit.*, p. 134.

and east but also on the north. In many cases they were separated from their neighbors by mountain ranges, expanses of desert lands, or geographically isolated by their location in out-of-the-way peninsulas. In some instances they were trans-mountain neighbors, and generally enemies, of the tribes with a four-class system.

The two-class system, which probably gave birth to the four- and thence the eight-class systems, is unquestionably not a basic institution; that is, there must have been a simpler social state before the two-class system was formulated. In other words, there must, I believe, have been a no-class system, possibly of wide distribution at an early time, since we actually find several groups in separated areas of Australia which have no classes.

Let us begin with a survey of the most elaborate social form. The eight-class system occupied one solid territory in the center of the continent. Passing from this center on all sides, even to the south, the southern half of the Arunta (with eight classes in the northern part of the tribe) was found with a four-class system, thus furnishing a stepping-stone between the two-class Urabunna and Dieri and the eight-class tribes of the north. On the east and west four-class tribes stretched away to the ocean, meeting the no-class Chepara in southeast Queensland, and the no-class Yuin in southeast New South Wales. To the north the Mara, Anula, Wari, Waduman, and others had the four-class system.

South of the four-class Arunta, tribes with a two-class organization commenced. They occupied the greater part of southern and southeastern central Australia, bordering four-class tribes throughout their northern contact and either touched the ocean on the south or connected with peoples having no class organization: namely, the Yerkla-mining, Narrinyeri, Narranga, the Southwestern Victoria peoples, and the Kurnai.

North of the four-class system in the peninsula of the Northern Territory were also many tribes which were organized in a no-class system. The two-class organization seemed to be lacking here. The accompanying map illustrates the situation. It is based mainly on Howitt, Thomas, and Spencer and Gillen.

Generalizing, then, it would seem that the central area, that of the eight-class system, was surrounded by tribes having a four-class system which had spread east and west until it occupied most of the continent; that mostly in the south, what may prove to be its forerunner, the two-class organization, was maintained except in various coastal places, where, in addition to other coastal peripheral districts, the no-class system was found.

Thus there were distinctive steps leading from the eight-class tribes in the center, to the four-, to the two-, and finally on the continental margin, both north and south, to a no-class organization. As it is believed that the eight-class system developed from the four-, and that the four-class system grew out of the two-, it seems logical to my mind to go to the next and last step to determine if it, in its turn, was not the underlying basic organization of the entire continent. While from a geographical consideration it might look that way, to test it further we should insist upon an examination of actual data as well as consider the attitude usually taken in respect to the progress of social development from the less to the more elaborate and complex patterns.

It is well, therefore, to analyze the characteristic features of the social organization of all of the Australian tribes, but most especially of those not having the class organization in order to see if there is any prevailing type-phenomenon common to them all.

If it can be shown that the various marginal tribes which have a no-class system are organized on a similar basis, then my theory that their type of organization is precedent to the class system can be considered more plausible.

To illustrate this situation, several tribes of people who lived along the coastal districts of Australia have been reported as having a no-class organization. These include (1) the Kurnai of Gippsland, Victoria; (2) the Yuin of southeastern New South Wales; (3) the Geawegal and Gringai of the Hunter River District of New South Wales<sup>5</sup>; (4) the Chepara of Brisbane and its hinter-

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<sup>5</sup> Howitt, *Nat. Tr.*, p. 85, quoting E. Palmer. The territory marked X on the map was believed to have a local organization similar to that of the other coastal tribes.

land, southeastern Queensland; (5) the Yerkla-Mining of Eucla, South Australia; (6) the Narrinyeri of Lacepede Bay, South Australia; (7) the Narranga of York Peninsula, South Australia; (8) the Coastal tribes of the Peninsula country of the Northern Territory and the peoples of Melville and Bathurst Islands; and (9) the tribes of southwestern Victoria.

All of these tribes<sup>6</sup> are characterized by the reckoning of descent in the male line except the last (9) which has maternal descent. This is not an isolated group, however, but is the apex and the most southern extension of the maternally descended groups, to which it is contiguous on the south.

Although found on the southern, eastern, and northern coasts, widely separated, in most cases, by groups of tribes with the two-class or the four-class system, these classless tribes are found to be not unlike each other in the make-up of their local organization.

### 1. KURNAI

The Kurnai inhabited the fertile country of Victoria known as Gippsland. They were divided into five divisions, each of which lived in a designated locality. The territory of each was subdivided into a number of local groups, which, in turn, were further

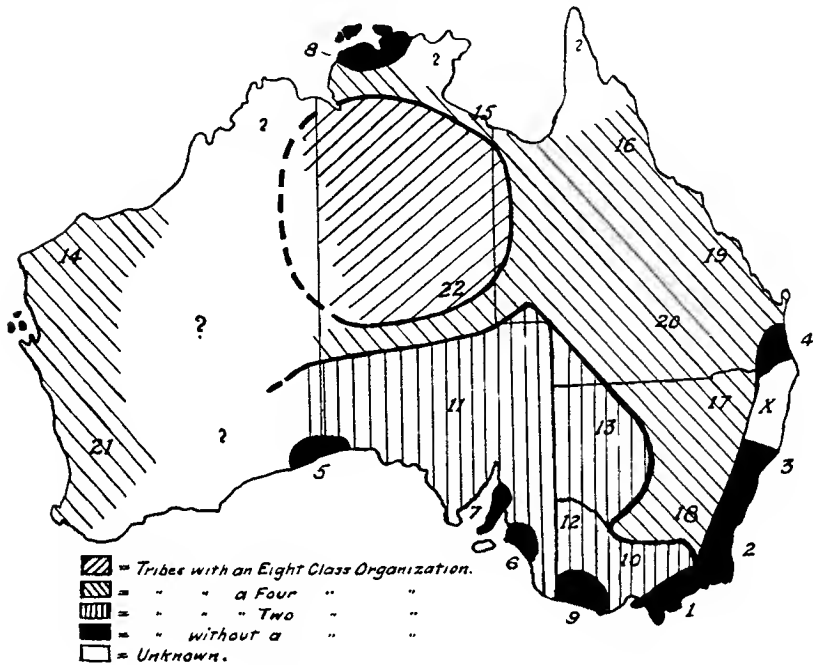
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<sup>6</sup> Since the nomenclature used in connection with the Australian aborigines is varied and perplexing, it is necessary to define it.

Tribe: A tribe is a social unit which is generally characterized by a name, a common speech or dialect thereof, having the same or similar customs and occupying a recognized territory. *Vide* Brown, *Notes on the Social Organization of Australian Tribes*, J.A.I., N.S., Vol. II, 1918, p. 222; Malinowski, B., *The Family Among the Australian Aborigines*, London, 1913, p. 134; Howitt, *Smithsonian Report*, Washington, 1885, p. 3; Howitt, *op. cit.*, p. 41; Thomas, *Kinship Organization and Group Marriage in Australia*, Cambridge, 1906, p. 7; Colwell, *A Century in the Pacific*, London, 1904, p. 167; Spencer, B., *op. cit.*, p. 34.

Local Group. A local group is a geographical subdivision of a tribe. It possesses the exclusive right to a given territory and dwells within its limits. It is usually composed of paternally related male individuals with their wives and children, the wives being born in other local groups. Brown has designated this social group a "horde," deriving the word from the Tatar "urdu" meaning "a camp." But, as most of the authorities have used "local group," this term has been retained to avoid confusion. *Vide* Spencer and Gillen, *The Northern Tribes of Central Australia*, London, 1904, pp. 27, 31; Malinowski, *op. cit.*, p. 136; Thomas, *op. cit.*, p. 8; Curr, *The Australian Race*, 4 Vol., Melbourne and London, 1886. Vol. I, pp. 61, 64.

subdivided, until the ultimate basis of society was the family unit which inhabited its own tract of hunting and food grounds.<sup>7</sup> The size of the family group, however, cannot be expressed with certainty, for, although Howitt in one instance states that the



Distribution of Class Organization

family unit consisted of "frequently an old man, his sons, married or unmarried, with their respective wives and children," he later says that the oldest male of the family had authority over the others, thus indicating that, in some cases, several families of three generations each composed the "family."

It is evident from Howitt's statement that the meaning of "family," as he used it above, must be synonymous with our definition of a local group which is nothing more than a large family of parallel kinsfolk related paternally. His statement, therefore, that the oldest male of the family (local group) had authority over the others is entirely in unison with a later one

<sup>7</sup> Howitt, *op. cit.*, p. 73.

that "the local groups were under headmen called Gweraeil, or Great Men."<sup>8</sup> We may deduce from this that a large family (local group) had as its headman one of its oldest members who was called a Great Man. There was also a Council of Elders who, individually, were the heads of families (in the strict sense of the word).<sup>9</sup>

Each local group possessed its individual name, derived, in some cases, from their principal locality, while in others it was the local group that gave the name to the locality. For example, Kutbun-taura was the name of a local group of the Brátua division of the Kurnai and meant "fire carriers."<sup>10</sup>

Each individual family also had a family name. In the case of the Bungil-baul

each male received the name Bunjil-baul at his initiation. The oldest male of the family had authority, but they were all collectively Bunjil-baul.<sup>11</sup> Each Kurnai, besides his family name, received from his father at initiation the name of some marsupial, bird, reptile or fish. This name was called a *thundung* (elder brother). Upon reaching maturity he was entitled to the designation of *boldain*, or old man. At this time he usually acquired a new personal name "often derived from some personal peculiarity or quality."<sup>12</sup>

Upon marriage, which was between individuals of certain local groups, the young man had hunting rights to two family territories, his own by birth and that of his wife, and thus began a partially independent life, wandering over the hunting ground with his wife. Although the wife generally came to live on the territory of the husband, "there were instances where the man joined the clan (division) of his wife and abandoned his own."<sup>13</sup>

## 2. YUIN

The Yuin or Murring tribe lived in the southeastern district of New South Wales from Cape Howe to the Shoalhaven River

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<sup>8</sup> *Ibid.*, p. 317.

<sup>9</sup> Howitt and Fison, *Kamilaroi and Kurnai*, p. 215.

<sup>10</sup> Howitt, *op. cit.*, p. 73 *kutbun*, carriers; *taura*, fire.

<sup>11</sup> *Ibid.*, p. 74.

<sup>12</sup> *Ibid.*, p. 738.

<sup>13</sup> *Ibid.*

and from the coast inland to the Great Dividing Range. The area inhabited by these people was practically contiguous to that of the Kurnai; in fact, they intermarried with the Beri (Ben) local group of the Krauatung Kurnai.<sup>14</sup> Tribal partitionment divided the Yuin into southern (Guyangal) and northern (Kurial) divisions.<sup>15</sup> They were also separated into geographical divisions such as Katungal, or fishermen; Paiendra, or tree climbers; and Bemerang, or mountaineers.

The social organization of the Yuin was extremely chaotic. There were no class names or even traces of them,<sup>16</sup> but there were many totems scattered over the country, all of which descended in the male line and were exogamous. Totemic names (*budjan*) were considered as pertaining to magic (*joia*) and very few people were acquainted with the *budjan* of another. Each individual possessed a personal name, besides that of his totem. Marriage was governed entirely by locality, certain local groups reciprocating in this relationship this privilege.<sup>17</sup> The wife generally came to live with the husband.<sup>18</sup>

Landright was birthright, a child belonging to the particular part of the country where it was born.<sup>19</sup> As with the Kurnai, the family seemed to be the fundamental division of the tribe which possessed land rights.<sup>20</sup> This is evidenced by the fact that family names were recognized and inherited from the father by the children.<sup>21</sup> The exact meaning of the term "family" cannot be accurately ascertained in these instances, but certainly it would fall within our definition of a local group.

Each of the local divisions had as its leader a headman called a *gommera*.<sup>22</sup> The incumbent was required to be able to speak several dialects and to perform feats of magic as well as to be

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<sup>14</sup> *Ibid.*, p. 272.

<sup>15</sup> *Ibid.*, p. 81. (*Guya*, south; *kura*, north; *gal*, possessive postfix.)

<sup>16</sup> *Ibid.*, p. 133.

<sup>17</sup> *Ibid.*, p. 262.

<sup>18</sup> *Ibid.*, p. 266.

<sup>19</sup> *Ibid.*, pp. 82-83.

<sup>20</sup> *Ibid.*, p. 315.

<sup>21</sup> *Ibid.*, p. 739.

<sup>22</sup> *Ibid.*, p. 314.



a brave and adept fighter. A tribal council consisted of all the initiated men, but the elders and *gommera* were the important members and were regarded as leaders.<sup>23</sup>

### 3. GEAWEGAL AND GRINGAI

Another coast tribe of New South Wales was the Geawegal, who lived on the Hunter River. Very little information concerning these people is available. Authority was in the hands of a council of elders who recognized some individual warrior as headman.<sup>24</sup> This office, however, was held only during the pleasure of the council, its incumbent being liable to removal upon their decision. The succession to headmanship tended to be hereditary, nevertheless, when the son proved ability.<sup>25</sup> A medicine man might be a headman but was not necessarily so.

To the north of the Geawegal was another tribe known as the Gringai, with whom they intermarried. They were organized into local groups called *nura*, each of which consisted of from six to nine individual families.<sup>26</sup> The position of headman tended to be hereditary.<sup>27</sup>

North of this tribe was a stretch of coastal territory for three hundred miles, set off from the interior by the Great Dividing Range. Although once inhabited by many tribes, very little has been recorded of its people or their institutions. Undoubtedly, they were organized in a manner similar to that of the other coastal tribes, especially in local organization.<sup>28</sup>

### 4. CHEPARA

At the southern extremity of the coast of Queensland were the Chepara, whose territory extended from Danger Point to near Brisbane and for twenty miles inland. They were divided into several divisions, each of which was subdivided into local groups. Presumably, each local group had a headman in relation to the

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<sup>23</sup> *Ibid.*, p. 325.

<sup>24</sup> *Ibid.*, p. 325.

<sup>25</sup> *Ibid.*, p. 326; also, *vide* Rusden in Howitt and Fison, *op. cit.*, p. 281.

<sup>26</sup> Howitt, *op. cit.*, pp. 84, 267.

<sup>27</sup> *Ibid.*, p. 315.

<sup>28</sup> *Ibid.*, p. 85 (quoting E. Palmer).

division, as several headmen are spoken of, one of which was superior to the others.<sup>29</sup> The office was hereditary, descending from father to son. The medicine man was not necessarily a headman.<sup>30</sup> Each division had a council of elders. Marriage was by locality<sup>31</sup> and might take place between members of the same division.<sup>32</sup>

#### 5. YERKLA-MINING

The Yerkla-Mining inhabited the coast of South Australia east and west of Port Eucla. Very little is known about this tribe. There were four totems, localized somewhat after the fashion of the Yuin falling into coastal, inland, and mountain groups.<sup>33</sup> The medicine man seemed to have some authority over his local group.<sup>34</sup>

#### 6. NARRINYERI

The Narrinyeri, another essentially coastal tribe, lived along the coast of South Australia between Cape Jervis and Lacepede Bay, and extended inland along the Murray River to a point about thirty miles above Lake Alexandrina. Within this tribe there were eighteen local groups, each "inhabiting a definite part of tribal territory."<sup>35</sup> These local groups were considered by themselves as constituting families<sup>36</sup> and varied in size, according to Thomas, from twenty to two hundred.<sup>37</sup> Eyre states that each male individual owned some portion of land of which he knew the exact boundaries and which he bequeathed to his children.<sup>38</sup> Trespassing was forbidden unless permission of the owner was first obtained.

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<sup>29</sup> *Ibid.*, p. 318.

<sup>30</sup> *Ibid.*, p. 319.

<sup>31</sup> *Ibid.*, p. 136.

<sup>32</sup> *Ibid.*, p. 280.

<sup>33</sup> *Ibid.*, p. 129.

<sup>34</sup> *Ibid.*, p. 258, 313.

<sup>35</sup> *Ibid.*, p. 68, also, *vide* Angus, G. F., *Savage Life and Scenes in Australia and New Zealand*, London, 1849, Vol. I, p. 88.

<sup>36</sup> Taplin, G., in Woods, *The Native Tribes of South Australia*, p. 1.

<sup>37</sup> Thomas, *op. cit.*, p. 32.

<sup>38</sup> Eyre, E. J., *Journal of Expedition and Discovery in Central Australia*, London, 1845, Vol. II, pp. 218, 297.

Every local group had its totem (*ngailye*); thus, the totemic name might be considered as corresponding to a family name.<sup>39</sup> Government of each local group was in the hands of a headman and a council of elders called *tendi*.<sup>40</sup> The individual families were small, a couple usually having not more than three or four children.<sup>41</sup>

## 7. NARRANGA

Of very similar organization to the Narrinyeri were their neighbors, the Narranga, who lived just across the Gulf of St. Vincent in the Yorke Peninsula. There were four local divisions, which Howitt does not absolutely identify as local groups, but since the information given compares very favorably with that presented for the Narrinyeri, the same meaning may be inferred.<sup>42</sup> Each had its individual totem, which was not exogamous.<sup>43</sup> Each group had a headman who inherited his office from his father.<sup>44</sup> Government, such as it was, was controlled by a council of elders, which was composed of a headman and the older men of the tribe.<sup>45</sup>

## 8. COASTAL TRIBES OF THE NORTHERN TERRITORY

In the peninsula country of the Northern Territory were a group of tribes which will be considered in conjunction with the inhabitants of Melville and Bathurst Islands. These people, including the occupants of the Coburg Peninsula and the district drained by the East, South, and West Alligator Rivers, and the Larakia tribe east of Port Darwin, were without any class organization whatsoever.<sup>46</sup> On Bathurst and Melville Islands combined, Spencer has located fifteen local groups but believes that there

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<sup>39</sup> Howitt, *op. cit.*, p. 68; Taplin (Woods, *Nat. Tr. of S. Aus.*) p. 1.

<sup>40</sup> Howitt, *op. cit.*, pp. 314, 325; Eyre, *op. cit.*, Vol. II, p. 317.

<sup>41</sup> Angas, G. F., *op. cit.*, Vol. I, p. 81.

<sup>42</sup> Howitt, *op. cit.*, p. 67.

<sup>43</sup> Sutton, T. M., *Proc. R.G.S.A., S. Aus. Br.*, 3rd Ses. Vol. II, p. 17; Howitt, *Nat. Tr.*, p. 258.

<sup>44</sup> Howitt, *op. cit.*, p. 313.

<sup>45</sup> *Ibid.*, p. 324.

<sup>46</sup> Earl, G. W., *On the Aboriginal Tribes of the Northern Coast of Australia*, J.R.G.S., Vol. 16, London, 1846 p. 239; also *vide* Spencer, B., *op. cit.*, pp. 14, 42, 47.

were more.<sup>47</sup> Each occupied its own definitely bounded district and possessed a distinct name, although there was no specific name for the whole tribe.<sup>48</sup> It is understood that all of the other tribes were organized, likewise, into local groups.<sup>49</sup> Among all of the tribes totemism was very strongly developed but under varying circumstances.<sup>50</sup> At Port Essington not only the totem but also the local group descended maternally.<sup>51</sup> This is certainly a very exceptional and unique case. Among some of the tribes the totem descended neither through maternal nor paternal lines. In these instances the spirit of the dead informed the father of the child to what totem it belonged. Every member of the local totemic group had his or her secret name which was known only to the old men of the group.<sup>52</sup>

Marriage regulations varied to some extent, also. At Melville and Bathurst Islands marriage was regulated by the totemic group. In some cases marriage was

concerned with the local group, a man of one group taking as a wife a woman of another, who comes into his own group to which his children also belong.<sup>53</sup>

## 9. TRIBES OF SOUTHWEST VICTORIA

In southwestern Victoria, from Portland to White Point and inland to the Great Dividing Range, were located a group of peoples whom Howitt indicates as having an anomalous class system and maternal descent.<sup>54</sup> Each tribe had its territory divided so that each family owned a definite tract of land which

<sup>47</sup> Spencer, B., *op. cit.*, p. 45.

<sup>48</sup> *Ibid.*, p. 43.

<sup>49</sup> Parkhouse, T. A., *Trans. R.S.S.A.*, Vol. 19, 1885, p. 1. Local groups are here reported for the Larakia, Awarra, Aggradundi, Adowen, Mennagi, Wulnar, and other tribes of the mainland from Port Darwin to Eveleen. *Vide* Basedow, *Western Coastal Tribes*, *Trans. R.R.S. Aus.*, Vol. 31, p. 2.

<sup>50</sup> Spencer, B., *op. cit.*, p. 14.

<sup>51</sup> *Ibid.*, p. 46.

<sup>52</sup> *Ibid.*, p. 24.

<sup>53</sup> *Ibid.*, p. 46.

<sup>54</sup> Howitt, *op. cit.* Map. p. 90. Some writers have considered this group as possessing a class system. This is so indefinitely described that the group is included with the classless tribes.

was inherited from father to son.<sup>55</sup> When these estates met at lakes or swamps, special care was taken to define accurately the boundary of each. The family territory was named after the owner.<sup>56</sup> As the first child of either sex was named after the father, it is evident that the tendency existed for the development of a family local name, since each child inherited at least a part of the family local plot.<sup>57</sup> This feature, however, was not constant as custom allowed one individual to change his name with another.

Upon the death of the father, the widow and children shared equally in the division of the family tract. Trespassing or poaching was severely punished. Dawson, in speaking of a tribe, probably refers to our meaning of local group. This "tribe" was governed by a headman who held a hereditary office.<sup>58</sup> Each "tribe" was exogamous and the wives were obtained from a distance. The presence of five totems, however, further restricted the marriage possibilities as one could not marry into the totem of his or her mother or grandmother. The descent of the totem was maternal.

#### SUMMARY OF NO-CLASS TRIBES

In summarizing the local organization of the classless tribes, I have shown that although they were found on the southern, eastern, and northern coasts, widely separated in most cases by groups of tribes with two- or four-class systems, they were not unlike in make-up. In fact, they were so similar and so numerous that a theory of parallel development, according to my mind, would seem insufficient. Nevertheless, according to the hypotheses of Howitt and others, parallel development is to be held accountable for their resemblances, for these classless tribes have been regarded by them as possessing systems which were demoted forms of the class organizations of their neighbors, and therefore, being separated from each other by hundreds of miles of territory, and thus not being able to influence each other, parallel development must have taken place. Parallel development, however,

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<sup>55</sup> Morgan, J., *Life and Adventures of Wm. Buckley*, Hobart, 1852, p. 37.

<sup>56</sup> Dawson, J., *Australian Aborigines*, Melbourne, 1881, p. 7.

<sup>57</sup> *Ibid.*, p. 41.

<sup>58</sup> *Ibid.*, pp. 5, 7. *Vide* Howitt, *op. cit.* p. 125.

does not progress through such closely similar stages in so many segregated and contactless communities. This reason alone is sufficiently strong to cause the theory to be questioned. The only other possibility which is applicable to our problem is that of a unitary origin for all. And this, I believe, has been substantiated by the facts presented. To summarize my argument, it has been shown that among the tribes with a no-class organization:

1. Each was marginal to the continent and was found in a geographically isolated area. This fact has sufficient value in itself to argue that the classless state preceded in respect to time the class organization. However strong this assumption may be in itself, its strength is so greatly augmented by additional evidence that there can be little doubt of its validity.

2. In summarizing generally the recorded facts for each tribe, we have seen that each was organized into local groups.

3. In some tribes partition of territory went still further, as the reports of family districts have shown.

4. When detailed information concerning the local groups has been furnished, it always included statements that boundaries were fixed and recognized.

5. Trespassing was forbidden unless permission was obtained from the owner or owners.

6. The territory of the local group was inherited in the male line (information lacking for some tribes) and in some instances a right was retained over the area of the local group of the mother. (The Port Essington tribe is reported with maternal descent in the local group. This is not only exceptional in the classless tribes but also Australia in general.)

7. The local groups were generally patrilocal. There were, however, exceptions to this rule. In all probability this factor was determined by economic conditions and the population of the various local groups.

8. Every local group but one, on which information is lacking, had as its leader a headman. In several of the tribes this office was hereditary, or tended to be so, except when the son was obviously unfit for the position.

9. The headmen and the old men in each tribe or division thereof formed what has been called a council of elders. (Information not complete for all tribes.)

10. Marriage, in many tribes, took place between reciprocating localities.

11. When information has been quite detailed, statements have shown that the local groups were patronymic.

It would now seem quite apparent, in view of the evidence presented, that the local group organization, which is so uniformly characteristic of all the widely distributed classless tribes, may be accepted conclusively as of single origin. Further proof, however, may be sought for support of the view taken. If the

no-class system is of unitary origin, it must underlie, in part at least, the organizations of the other tribes of Australia which have developed a true sib system. It is appropriate, therefore, to examine them in order to determine if any vestiges of the classless order have been retained and if so to what extent these are similar to the characteristics of the tribes just referred to.

#### TWO-CLASS TRIBES

Tribes with a two-class system inhabited central, southern, and eastern South Australia, the southwestern corner of Queensland, western New South Wales in the Darling River territory, and most of Victoria. They extended to the sea in South Australia and Victoria when they were not contiguous to the no-class tribes previously mentioned. The tribes included are (10) the Kulin and Bangerang of Victoria, (11) the Dieri and neighboring tribes of South Australia, (12) the tribes of the Wimmera District of Victoria, and (13) the tribes of the Darling River, New South Wales.

It will be hardly necessary to mention in detail the information about these tribes. Upon summarizing the characteristics of the no-class tribes as found among those with the two-class grouping we find that:

1. The local group was present in all instances.<sup>59</sup>
2. Family districts were also reported.<sup>60</sup>
3. Boundaries were definitely fixed.<sup>61</sup>
4. Trespassing was forbidden (when reported).<sup>62</sup>
5. Territory of the local group was inherited in the male line (when reported).<sup>63</sup>
6. In at least one instance, in spite of the two-class system, marriage was, in addition, between certain reciprocating localities.<sup>64</sup>

<sup>59</sup> Bangerang, Curr, *op. cit.*, Vol. I, p. 65, Vol. III, pp. 561, 567-568. The Bangerang were probably very similar to the Kulin. *Vide* Howitt, *op. cit.*, pp. 54, 609; Kulin, *ibid.*, p. 72; Dieri, *ibid.*, p. 46. For tribes associated with the Dieri, *vide ibid.*, p. 297; Wimmera District, *ibid.*, pp. 54-55; Darling Tribes, *ibid.*, p. 50.

<sup>60</sup> Bangerang, Curr, *op. cit.*, Vol. I, p. 65, Vol. III, pp. 561, 567, 568; Kulin, Howitt *op. cit.*, p. 72; Darling District, *ibid.*, pp. 49-50; Newland, S., The Parkengees, *Proc. R.G.S.A.*, S. Aus. Br., Vol. II, 3rd Ses., p. 31.

<sup>61</sup> Kulin, Howitt, *op. cit.*, p. 72; Dieri, *ibid.*, p. 47; Darling, *ibid.*, p. 51.

<sup>62</sup> Kulin, *ibid.*, pp. 71, 311.

<sup>63</sup> Kulin, *ibid.*, 311; Dieri, *ibid.*, p. 47; Darling Dist., *ibid.*, p. 50.

<sup>64</sup> Kulin, *ibid.*, p. 252.

7. Headmen were the leaders of the local groups.<sup>65</sup>
8. There was a tendency for this office to be hereditary.<sup>66</sup>
9. A council of elders and headmen formed the governing body.<sup>67</sup>
10. When evidence is present, the local groups were found to be patri-local.<sup>68</sup>

We have thus found that in the two-class tribes, although they possessed a social system which was absent from the no-class tribes, this social grouping was superimposed upon the characteristic no-class organization, while the fundamental substrata remained unchanged.

#### FOUR-CLASS TRIBES

Many tribes were organized into a four-class system. They were contiguous to the entire northern border of the two-class tribes and in some localities were separated from the no-class tribes by the Great Dividing Range. The four-class tribes include (14) the Kariara of Northwestern Australia, (15) the Mara of the Southwestern shore of the Gulf of Carpentaria, (16) the Queensland Group, (17) the Kamilaroi of north-central New South Wales, (18) the Wiradjeri of south-central New South Wales, (19) the Maryborough tribes, (20) the Wakelbura of central Queensland and (21) the tribes of western Australia.

In summarizing their basic characteristics we find that:

1. The local group is again everywhere present.<sup>69</sup>

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<sup>65</sup> Kulin, *ibid.*, pp. 308-310; Dieri, *ibid.*, p. 297; Wimmera, *ibid.*, pp. 54-55, 324; Darling, *ibid.*, p. 49-50, Newland, *op. cit.*, p. 31.

<sup>66</sup> Kulin, Howitt, *op. cit.*, p. 308-310; Dieri, *ibid.*, p. 298; Wimmera, *ibid.*, p. 305.

<sup>67</sup> Kulin, *ibid.*, pp. 308-310; Dieri, *ibid.*, pp. 297-298, 300, 320; Wimmera, *ibid.* p. 324; Darling, *ibid.*, pp. 49-50, Newland, *op. cit.*, p. 31.

<sup>68</sup> Dieri, Lowie, *Primitive Society*, New York, 1920, p. 393.

<sup>69</sup> Kariara, Brown, *Three Tribes of the Western Coast of Australia*, J.A.I. Vol. 43, 1913, pp. 145, 147, 171, 175; Mara, Spencer and Gillen, *The Northern Tribes of Central Australia*, London, 1904, pp. 27-29, 144. Stretton, W. G., *Trans. R.S.S.A.*, Vol. 17, pp. 229, 239; Northeast Queensland, Roth, *North Queensland Ethnography*, 1901-06, Bul. 8, pp. 8-9; Kamilaroi, Howitt, *op. cit.*, p. 57. For tribes similar to the Kamilaroi *vide* Thomas, *op. cit.*, p. 31; Wiradjeri, Howitt, *op. cit.*, p. 56; Maryborough, *ibid.*, p. 58; Matthew, J., *Two Representative Tribes of Queensland*, London, Leipsic, 1910, p. 131; Wakelbura, Howitt, *op. cit.*, pp. 63-64; Western Australia, Calvert, *Aborigines of Western Australia*, London, 1894, pp. 19-20; Ord, *A Brief Account of the Natives of West Australia*, p. 5.



2. Writers again report the scattered existence of family plots.<sup>70</sup>
3. Boundaries of the local groups were well defined.<sup>71</sup>
4. Trespassing was forbidden.<sup>72</sup>
5. Territory descended in the male line.<sup>73</sup>
6. Headmen were the leaders of the local groups.<sup>74</sup>
7. There was a tendency for this office to be hereditary.<sup>75</sup>
8. There was a council of elders.<sup>76</sup>
9. There was one specific report of patrilocality.<sup>77</sup>

In our consideration of the four-class tribes, it has been evident that underlying their social organization the typical features of the no-class tribes were again present. The various traits, however, were not reported for all of the tribes included. We are, however, inclined to believe that although not mentioned, these features may have been present among the other tribes since they have not been denied in any one case.

#### EIGHT CLASS TRIBES

In north-central Australia lived a great group of people known as the Arunta. These people have attracted considerable attention because of their development of the eight-subclass system. The southern half of the tribe, however, had but four classes and thus formed an intermediate step between the two-class Urabunna to the south, and the other half of their own tribe to the north. The Arunta may be taken as an example of the tribes with the eight-

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<sup>70</sup> Northeastern Queensland, see 69; Maryborough, Smyth, B., *Aborigines of Victoria*, 2 Vol., London, 1878, p. 146, Western Australia, Grey, *Journal of Expedition and Discovery in Northwest Australia*, 2 Vol., London, 1841, Vol. II, p. 252.

<sup>71</sup> Kariara, Mara, Northeast Queensland, Kamilaroi, Wakelbura, see 69; Maryborough and Western Australia, see 70.

<sup>72</sup> Kariara, Northeastern Queensland and Kamilaroi, see 69; Mara, Stretton, *op. cit.*, p. 249; Western Australia, see 69 and 70, also Roth, *Proc. R.S. Queensland*, Vol. 17, part 2, pp. 50, 53.

<sup>73</sup> Kariara and Northeastern Queensland, see 69; Western Australia, Calvert, *op. cit.*, p. 19, Roth, Vol. 17, part 2, p. 55, Grey, *op. cit.*, Vol. II, p. 236.

<sup>74</sup> Mara, see 69, Kamilaroi, Howitt, *op. cit.*, p. 302; Wiradjeri, *ibid.*, pp. 56, 303; Wakelbura, *ibid.*, pp. 303-304; Western Australia, Roth, *op. cit.*, Vol. 17, part 2, pp. 54, 64.

<sup>75</sup> Mara, see 69; Kamilaroi, see 74; Wiradjeri, Cameron, A.L.P., *Notes on Some Tribes of New South Wales, J.I.I.*, Vol. 14, p. 356.

<sup>76</sup> Kamilaroi and Wakelbura, see 79. Wiradjeri, Howitt, *op. cit.*, p. 332; Maryborough, *ibid.*, p. 323.

<sup>77</sup> Kariara, see 69

class system. The underlying characteristics found with them were that:

1. The local group was still present.<sup>78</sup>
2. The families, although they did not have title to small plots of land, did wander over the territory of the group by themselves as in all other parts of the continent.<sup>79</sup>
3. Headmen were found in each local group.<sup>80</sup>
4. This office was strictly hereditary.<sup>81</sup>
5. Marriage was patrilocal.<sup>81</sup>

#### RECAPITULATION

In analyzing and reconstructing the local organization of the Australians, we have seen that every tribe was divided into smaller units known as local groups, whose boundaries were well known to the natives. Each local group generally was found to consist of blood relations or implied kinspeople related through the male line. In almost every instance the local group was patrilocal; that is, the wife came to live with the group of the husband, who inherited from his father either a certain district or the right to use the territory of the local group. In some instances the son had what seems to have constituted an obscure right to the local group of his mother, but this feature was rather exceptional.

Although each local group, which was really a large family, generally possessed the territory of the local group as a whole, there were instances where the individual families were owners of individual districts. This right in some cases was complete but was usually of a vague nature, for the families were in the habit of wandering by themselves in small bands over the territory of the whole group. Each local group was very jealous of its district, the punishment for trespassing not infrequently being death. Permission, however, would be granted generally to outsiders to pass through. In times of plenty, or when ceremonies were to take place, the neighboring groups and even other tribes were invited in.

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<sup>78</sup> Gillen, *Horn Expedition*, 4 Vols., Melbourne, 1896, Vol. 4, p. 162; Spencer and Gillen, *Nor. Tr.* pp. 27, 149; *Nat. Tr.* pp. 8-11, 16, 146-152.

<sup>79</sup> S. & G., *Nat. Tr.*, p. 16.

<sup>80</sup> See 78.

<sup>81</sup> S. & G., *Nat. Tr.*, pp. 10, 16; *Nor. Tr.*, pp. 20, 23, 25.

Each local group usually had a headman as its leader and the tendency was for this position to become hereditary, as it generally was when the son showed any signs of ability. Among some groups the headmen and the medicine men were the same.

The meager tribal government manifested by the Australians almost invariably took the form of a council of elders, which included the headmen and sometimes the older and more experienced men of the tribe.

In the reconstruction of Australian social chronology, therefore, we have good reason to believe that the two-class system, which Howitt and others have taken as fundamental, is, in fact, not the primary institution in point of time. The evidence, which has now been reviewed and found contradictory to this theory, argues for the establishment of the no-class local group system as the earliest organization in Australia of which we have record. It is manifestly the most simple and, in addition, exists in localities and under circumstances where one would expect to find institutions in the most undeveloped form—around the periphery of the continent<sup>32</sup>—and finally, it encloses the more complicated systems of the two-class, four-class, and eight-class systems.

That the classless group system is older than the class organization has been demonstrated by the evidence that it underlies the three class systems and is also found where they are lacking. If we look again at the situation, it appears that the classless local group system, to repeat a statement that I have stressed several times, is older than the class organization. An additional consideration is the fact that the former is an outlying element of a progression running from no-class into two-class, then to four-class, and finally into the eight-class system.

If, therefore, in conclusion, we take the characteristics of the marginal no-class tribes, I believe that the evidence presented in my discussion is sufficient to show that we have here the system which probably prevailed in Australia before the factors of class organization developed.

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<sup>32</sup> See Wissler, C., *Man and Culture*, New York, 1923, pp. 150 *et seq.*

## BOOK REVIEWS

### METHODS AND PRINCIPLES

*Essai d'introduction critique à l'étude de l'économie primitive: les théories de K. Buecher et l'ethnologie moderne.* Olivier Leroy. Paris; Librairie Orientaliste Paul Geuthner, 1925. XIII, 138 pp., 14 ills. (20 frs.)

Though primarily devoted to an extensive examination of the economist Buecher's views in *Die Entstehung der Volkswirtschaft* so far as they involve ethnological principles, Dr. Leroy's essay serves as an admirably sane introduction to the position of modern students as opposed to that of an antiquated unilinear evolutionism shot through with random speculations of popular psychology. The author devotes special chapters to Primitive Egoism, Social Structure, Property, Forethought, Sexual Separation and the Division of Labor, and Problems of Origin (Work, Exchange, Domestication of Animals). It is particularly gratifying to find that Dr. Leroy has closely studied the work of both the German and American historical schools, which (as he correctly notes) are in essential agreement on the points discussed by him, though casual remarks (pp. 63, 101) indicate that he is not a slavish follower of either. In a revised edition a fuller treatment of Domestication seems called for. This important topic demands more than the few pages here devoted to it. While we may sympathize with a rejection of "le diffusionisme intransigeant qui fermerait volontiers les yeux aux possibilités de créations originales" (p. 101) the independent domestication of a species in two regions may mean nevertheless the diffusion of the *idea* of domestication, and it is not clear whether this possibility is envisaged by the author.

ROBERT H. LOWIE

### PHYSICAL ANTHROPOLOGY

*The Old Americans.* ALEŠ HRDLÍČKA. The Williams and Wilkins Company, Baltimore, 1925. 438 pp.

Dr. Hrdlička's work on the "Old Americans" is the result of fourteen years of research, involving complete measurements of more than nine hundred persons, all adults, and pigmentation studies of about one thousand more. For the purposes of the investigation an

"old American" was defined as a native-born person of whom both parents and all four grandparents were also born in this country. Thus, for the first time, there becomes available scientific information as to the effects of long-continued residence of European stocks in the United States.

These studies dispose of the superstition that a long residence in this country has tended to transform the descendants of European settlers into something like a "Red Indian" type. As a matter of fact the "Old Americans" most closely resemble the English and Scotch, from whom the greater number are descended. This resemblance is shown to obtain in most anthropometric measurements and morphological observations. Nevertheless, the Americans show sufficient differences from their ancestral stocks to justify their characterization as a distinct anthropological type.

This book does not afford much comfort to those who assume that the early settlers in this country were principally members of the Nordic race. Only one among 16 males and one among 14.5 females of the Old Americans has really blond hair. More of both sexes are brachycephalic than are dolichocephalic. Nevertheless these Old Americans constitute the tallest ethnic group recorded among white races and their mean head dimensions exceed those of all other ethnic groups recorded. It is clear that their ancestors were, for the most part, racially mixed, and that the present generations tend to show considerable variability, but at the same time seem to be progressing toward anthropological unity. Stature is still increasing in this Old American stock.

The bare mention of all the important facts brought to light by this investigation would necessitate a very lengthy review. Dr. Hrdlička deals exhaustively with the influences of sex and age upon physical type and with the association of morphological and metrical features. The physiological data presented are of great value. An excellent feature of the book is the chapter of abstracts in which the results of the investigation are summarized. The extensive use of comparative data renders this work an invaluable compendium of information upon the anthropometry and physical characteristics of North European whites. The author has brought to bear upon the problems of this research his wide anthropological experience and his profound erudition. The result is one of the most important and interesting studies in anthropometry hitherto published. I do not think I am going too far when I say that this is the most thorough anthropological study of an ethnic group with which I am acquainted.

One or two small regrets do not detract seriously from the satisfaction and pleasure with which I regard this accomplishment. I wish that Dr. Hrdlička had been sufficiently interested in European race classifications to attempt an analysis of the various mixtures found in his Old Americans, according to the racial strains represented. This would have lead, at any rate to a definition of his position on the subject of European race classification, which would be of great interest. It seems also a pity that funds were not available for the printing of tables of raw measurements and observations in order to make this valuable material accessible for all future anthropologists. This project ought to have had sufficient financial support to enable the author to publish an album of the measurements and photographs of each individual studied. He should have had statistical assistance enabling him to calculate a few additional constants without making further demands upon his own apparently inexhaustible strength and industry. In this day when great foundations are lavishing funds upon all varieties of research projects and all sorts of investigators, it seems to me a shame that the distinguished scholar who officially represents Physical Anthropology in the United States should have been hampered in his research upon a subject of such great national importance by a lack of adequate funds, by insufficient assistance and by incomplete facilities for publication.

E. A. HOOTON

*Annals of Eugenics. A Journal for the Scientific Study of Racial Problems* edited by KARL PEARSON, assisted by ETHEL M. ELDERTON. Vol I, Parts I and II, October 1925. (Issued by the Francis Galton Laboratory for National Eugenics, University of London). 256 pp.

Every anthropologist will welcome the issue of a journal devoted to the study of racial problems when the editors are Professor Karl Pearson and Ethel M. Elderton. Such a journal will undoubtedly take its place beside *Biometrika* as an indispensable source of information and inspiration for all workers who endeavor to apply exact mathematical methods of treatment to anthropological data.

The first number of *Annals of Eugenics* begins with a trenchant editorial explaining the need for such a journal and outlining its purposes. Existing journals and text-books which deal with eugenics are dismissed with contempt. The future of the science of eugenics is stated rather than predicted

The science of Eugenics is in fact only highly developed and *applied* anthropology, and the day will inevitably come when every university of standing will have its professor and laboratory of Eugenics.

The attitude of the editors upon the subject of race differences may be gathered from the following excerpt:

No more than there is equality between man and man of the same nation is there equality between race and race . . . Many races have hardly yet found their true place and function in the community of nations. Science will not flinch from the conclusion, if such be inevitable, that some of these races scarce serve in the modern world any other purpose than to provide material for the history of man.

About one-half of the present issue of *Annals of Eugenics* is devoted to the first installment of a monograph entitled "The Problem of Alien Immigration into Great Britain, illustrated by an Examination of Russian and Polish Jewish Children" by Karl Pearson and Margaret Moul. About 600 Jewish boys and nearly as many girls constitute the sample upon which the work is based. The data include anthropometric measurements, medical information, sociological facts, and intelligence rating. Non-Jewish school children in similar districts are used for comparative data. Coefficients of correlation and of mean square contingency are employed in measuring the relationships of the different variables.

In physique the Jewish children are not found to be superior to the non-Jewish children, but inferior to them in the great bulk of categories dealt with. In cleanliness of clothing the Jewish children fall far short of the native Gentile population.

In the estimation of the intelligence of children a qualitative scale devised by Professor Pearson was employed, the children being graded by their teachers. The measurements on this scale are said to be highly correlated with Binet-Simon tests, with certain physical and psychical characters, and give the values to be expected for fraternal and parental hereditary coefficients. It is concluded from the studies of intelligence that

for practical purposes of prognosis there does not exist in the present material any correlation of the slightest consequence between the intelligence of the child and its physique, its health, its parents' care or the economic and sanitary conditions of its home. . . . Intelligence as distinct from mere knowledge stands out as a congenital character.

The Jewish girls have less intelligence than the Gentile girls in any type of Council School. The Jewish boys are not so good as the

Gentile boys of the medium or average schools, but better than the boys of the poor type of school

Taken *on the average*, and regarding both sexes, this alien Jewish population is somewhat inferior physically and mentally to the native population.

The contention of the authors is that in a crowded country only immigrants surpassing the average of the native population in physical and mental qualities should be admitted.

"On the Relative Value of the Factors which Influence Infant Welfare" is the subject of an inquiry by Ethel M. Elderton. This is based upon data collected in five towns. The statistical methods employed include various types of correlation and the coefficient of mean square contingency. Infant "viability" is studied in its relation to health of the parents, habits of the parents, condition of the home, occupation of the father, place in the family, age of mother at birth of child, employment of the mother, etc. The results of this investigation do not seem to be clear-cut. The memoir is to be continued in the next issue of the journal.

The other papers in the present issue are "A Pedigree of Epicanthus and Ptosis," by C. H. Usher and "A Note on the Correlation between Birth- and Death-Rates with reference to Malthus's Interpretation of their Movements."

E. A. HOOTON

## ASIA

*The Birhors: A little-known Jungle Tribe of Chota Nagpur.* RAI BAHADUR SARAT CHANDRA ROY. Ranchi, 1925. vi, 608 pp.

In this volume Rai Bahadur Sarat Chandra Roy, editor of the recently founded journal *Man in India* has given us a third excellent monograph on the wild tribes of the Chota Nagpur plateau. His first study published in 1912 dealt with the Munda; the second published in 1915 described the Oraon, an immigrant Dravidian folk who came into the region probably in the early centuries of the Christian era. In the present volume the author returns to the older aboriginal stock, and gives us a valuable account of the Birhors.

Like their neighbors the Munda, Korwa and Santal, the Birhors belong linguistically to the Kolarian, or Munda group, of which the Ho, Juangs and a number of other tribes are also members, and which is related to the Mon-Khmer of the southeastern part of the continent.



The vocabulary contains, however, a large number of Sanskrit loan words. On the basis of the physical measurements given by Mr. Roy the Birhors seem to resemble rather closely the Munda and Krowa for whom Risley has given data.

Culturally the Birhors stand on a much lower plane than the Santal, Munda or Ho, and would appear to be more comparable with the Korwa further west, or the Juangs of Orissa to the south. In the main they are nomad hunters, depending chiefly on deer and monkeys (which they catch in nets), living in small groups of a few families in rude shelters of leaves and straw. Their primary occupation is the making of string and rope from the fibrous bark of the "chop" creeper, which they barter with the surrounding people for rice, textiles, pottery, and other products which they do not produce themselves. Some Birhor groups known as "Jaghi" are semi-sedentary and raise a few beans etc. on burned patches in the jungle. Like the Munda, the Birhors chew tobacco mixed with lime, instead of smoking. The betel-nut is apparently unknown. With practically no agriculture, ignorant of textiles, pottery and metal-working and with sticks and clubs as their chief weapons (although they make some use of the bow) the Birhors have a but slightly developed material culture.

The small local groups, known as "tandas" are the primary social unit. Each has a headman who is at the same time the priest of the group, and also one or more "matis" or shamans. Unlike the Munda, organization there is no combination of these local groups into larger political units or "parhas." The Birhors are, like other Munda peoples divided into a large number of exogamic, patrilineal, totemic clans, named generally after animals or plants. The origin of the name comes from a chance association of the animal or plant with the mythical clan ancestor at his birth. The clans have clan traditions of origin at particular hills, and hold annual ceremonies and offerings to the spirits of these hills, in which use is made of emblems of the totem. As among other Munda tribes, each settlement has normally a men's-house and girls' house, in which the unmarried of either sex sleep. Marriage involves a rather elaborate ceremony, polygamy is permitted, and although pre-marital relations are lax, after marriage strict penalties are imposed for breaches of morals.

The dead are generally cremated, but burial is optional and common among the poor. The ashes are put in a pot and buried under a tree, the only reminiscence of the "sasan" with its stone slabs and miniature cromlechs of the Munda, Ho and other tribes being the

placing of a flat stone over the pot. Apart from the family and clan ceremonies held in honor of the ancestors, the nomad Birhors have few communal or regular festivals. The semi-sedentary groups have borrowed some of the regular festivals of the Munda and Hindus. The mythology appears to contain a rather large Hindu element.

The abundant details of the simple culture of this nomadic jungle folk present many features of interest to the student of Indian anthropology, giving us practically for the first time an adequate account of one of the more primitive aboriginal tribes. In Assam, under government support, a remarkable series of the hill tribes is being published, but this appears to be the only portion of India where the government realizes the importance of a systematic, thorough study of the aboriginal population. We should therefore be the more thankful to Mr. Roy for having on his own initiative undertaken the investigation of the Chota Nagpur tribes, and must congratulate him warmly on the sustained high excellence of the work done, and hope that he may be able to continue his studies.

R. B. DIXON

*Ethnographical Studies in Celebes. I: Structures and Settlements in Central Celebes.* 404, pp. 6 maps, 263 figures.; *II: Migrations of the Toradja in Central Celebes.* 216 pp., 25 maps. Göteborg; Walter Kaudern, 1925.

In December 1916, Dr. Walter Kaudern and his wife went to Celebes on an expedition lasting over four years, to investigate some of its zoö-geographical problems, and incidentally to study the natives of the more remote sections of the island. This secondary interest in anthropology soon absorbed the bulk of their attention, however, with the result that they secured a very complete ethnographical collection and a large mass of anthropological data, of which these volumes are the first fruits.

The region visited and explored (for a considerable part of the area studied has been practically unknown to anthropologists) comprised the greater part of the northern, eastern and southeastern peninsulas and the northern section of Central Celebes. The two volumes here discussed deal primarily with the large group of Toradja tribes in the latter region.

In volume one, Dr. Kaudern gives an extremely painstaking and well illustrated account of the house and temple types and forms of

settlement of the Toradja. Portions of the area had previously been described by Sarasin, Grubauer and Adriani and Kruijt, but Dr. Kaudern's studies are much more detailed than those of his predecessors. Four types of dwelling and eight main forms of temple are recognized. These types and their local variations are minutely described and elaborately illustrated. The conclusion is reached that the temporary structures are wholly indigenous in form, but that two of the permanent forms of dwelling are exotic. One seems to be derived from types characteristic of the coast, and may be derived from the Bugi; the other shows marked Micronesian affiliations. Traces also of Hindu-Javanese influence can be noted.

In the second volume the migrations of the Toradja tribes are studied with great care, with a view to determine their history and origin. Dr. Kaudern divides the Toradja into three groups, on a somewhat different basis than Adriani and Kruijt, whose division is based wholly on linguistic features. All observers have agreed that the Toradja are immigrant and not aboriginal, and further that they do not present a uniform physical type. A careful synthesis of all relevant data shows that the Toradja have reached their present habitat as a result of movements running north and northwest from the head of the Gulf of Bone. These movements were still in progress in the eighteenth century, but the author does not attempt to determine when they began. He suggests that, in part at least, they were due to the pressure and attacks of the Bugi, whose home lies in the southwestern peninsula. The Toradja show two more or less clearly contrasted types, (1) dark-skinned, round-faced, with short broad nose and (2) lighter-skinned, oval-faced with long, narrow nose. Both types are straight-haired. Among the Toradja, however, there exists a small minority of an aboriginal type, darker skinned and with frizzly hair.

Celebes is one of the most interesting islands of the Indonesian area, its extraordinary form offering unusual opportunities for the survival of aboriginal groups such as the Toala described by Sarasin; and for the intrusion of immigrant folk, such as the Toradja and the Minahassa, etc. Dr. Kaudern's studies add largely to our knowledge of the island's culture and history, and one looks forward with anticipation to the additional volumes which are promised, drawn from the author's rich materials.

R. B. DIXON

*County life in South China; The Sociology of Familism.* Volume I: *Phenix Village, Kwantung, China.* DANIEL HARRISON KULP II. New York; Bureau of Publications, Teachers College, Columbia University, 1925. XXXI, 367 pp., 17 ills., 21 tables, 5 maps, 10 figs.

This book is the result of an interesting series of studies carried on with laboratory methods under natural conditions. The author selected for study a small village (about 800) in South China and proceeded to exhaust all its possibilities, sociologically and ethnologically. If, as the author suggests, such studies could be drawn up for other communities in China (and of course anywhere else), the resultant body of facts would be of great value to many different branches of knowledge.

As it is, Dr. Kulp's book is a valuable addition to Chinese ethnology. Its minuteness provides accurate data, such as are difficult to acquire when generalities are dealt in. Especially good is his chapter on "Village Polity." His misuse of the word "moiety" might mislead readers into thinking such a division existed in Chinese social organization until the continued misuse reveals the fact that the author only means a kind of small division, or "branch family," a further misleading term for ancestral group. The use of the term "sex-group" to mean a family of one father with wife or wives and children is not a happy one; but once the reader becomes accustomed to Dr. Kulp's terminology, the relationships of the various groups are exceedingly well expounded. This is also true of the subject of land ownership and "ancestral lands."

"The Family and Sib" contains an excellent statement and explanation of filial piety, "the predominant attitude of village life." Marriage customs are minutely and accurately explained. *Familism*, the secondary subject of his book, is defined (p. 188)

as a form of social organization in which all values are determined by reference to the maintenance, continuity and functions of the family groups.

Without straining the point, Dr. Kulp shows in the cultural aspects of village life as well as in social organization and religion how unmistakably the life of Phenix Village is based on Familism.

Education in China is undergoing a very considerable change, and this study of Phenix Village well exemplifies the confusion of the transition period. Dr. Kulp's material is very detailed and excellent on this subject but, like everyone who goes to China, he here becomes

possessed with the missionary spirit and devotes several pages to pointing out ways and means for improvement.

Although little of true artistic merit was found in this rural community, Dr. Kulp under the heading of Art indicates the non-utilitarian contents of the houses, even including coffins in this category. His treatment of Chinese architecture is good especially in showing how the Chinese love of balance is carried out. Their strong impulse for dualism is discussed under religion. Various religious ceremonies are also treated in much detail, and an interesting comparison is suggested between the Chinese practice of consulting mediums and shamanism as found in Siberia.

The book as a whole is an excellent piece of work and similar studies of other localities might be carried out with very great profit. This method of intensive study is highly scientific and fruitful. We hope that "Volume I" on the title page points to further investigations carried on by Dr. Kulp. It might be suggested that the illustrations, especially where so much reference is made to them, might be improved. And Prof. von Luschan was not of Zurich nor Munich, but of Berlin.

SARA M. SCHENCK

### MISCELLANEOUS

*Male Infibulation.* ERIC JOHN DINGWALL. London: John Bale, Sons and Danielsson, Ltd., 1925. 145 pp.

In the three chapters into which the book is divided light is thrown on certain more or less obscure customs connected with the sexual life of ancient and medieval times. The practice of male infibulation is defined in the preface as "a mechanical means of ensuring chastity." In Chapter I the Roman form of infibulation is discussed together with an exhaustive citation from Roman authors and later European writers on the subject. Almost without exception quotations are in the original language used by the writer, quoted with only an occasional translation. In Chapter II there appears a discussion of the methods of infibulation practiced by the ancient Greeks, while Chapter III is a discussion of the form of glans deformation known as *phallus curvatus*.

The practice of male infibulation prevailed largely among certain classes of the Greeks and possibly of the Etruscans. Literary citations are not so numerous among Greek writers as among the Roman,

consequently most of the knowledge regarding the precise methods practiced is taken from the pictorial representations of the custom on ancient Greek vases. The foreskin is uniformly represented as being tied up at the end. This practice was known as *ligatura praeputii*.

In ancient classical works of art it has been noticed both in statues and vases that in the case of males the membrum is unusually pointed and the prepuce exceedingly long . . . we have seen above that some evidence exists that the Greeks considered a short prepuce to be in the nature of a deformity, although it is not at all certain how far a sense of shame or modesty was centered in the glans.

In other words infibulation, in ancient Greece, was practiced because of ideas with regard to decency and propriety.

Partly in justification of his explanation of the Greek custom and motive the writer next introduces a discussion of similar practices occurring among primitive peoples throughout the world today. Beginning with the Arabs and Egyptians, extending through certain central African tribes, male infibulation has been noted as far south as among the Bushmen of south Africa. The custom has been noted also among Persians and Abyssinians. Numerous peoples of the Pacific have similar practices: the Fijians, the natives of the Admiralty Islands, the Australians, the Papuans of New Guinea, and the Tapiro pygmies of the same island, the Pelew islanders, the natives of the New Hebrides, the Maori, and others. In America, Asia, and among primitive peoples everywhere there are tribes among whom occurrence of the custom has been noted. Reasons given for the practice are in every case one or the other of those cited as applying to the ancient Greeks and Romans.

HERBERT W. KRIEGER

*The Negro from Africa to America.* W. D. WEATHERFORD. New York, George H. Doran Company, 1924. 1-479 pp.

The title of this work suggests an inquiry into the African origins of the Negro stocks of America and one opens the book with this expectation. Disappointment follows. No light is thrown upon the important question of the ancestry of the negroes brought to America as slaves. It is well known that the planters preferred the true Negroes of the Guinea coast and the forests as more docile and less subject to depression, but there is evidence only waiting to be collected and analysed supporting the hypothesis that a considerable element in the slave gangs was drawn from the Negroid peoples of the Sudan, already mixed with the white blood of Africa. Such peoples

were not savages, but had behind them centuries of the culture of the kingdoms or emirates and cities of the Sudan.

The method of the author is largely compilation. He quotes extensively from the literature of African exploration and Christian missions, usually without criticism or discussion. Chapter II considers the African background of the Negro, and chapter III, Religious and Social Life in Africa. Here it is difficult to generalize. Conditions are dissimilar in the different regions and between the contrasting cultures of the vast continent. The method of covering a point by a quotation upon a situation only locally true is not satisfactory.

The bulk of the book is occupied with the Negro's history under American slavery, his present condition, his social handicaps and philanthropic efforts in his behalf. In some portions of these chapters lies the main value of the book.

There are some mistakes of statement, as on p. 23, where Mungo Park is said to have been on the eve of arrival at Timbuktu when he met his death. On a single page (p. 16) Las Casas is printed "Las Cassas," Chiapas "Chiapa." Asiento might preferably have been spelled in its Spanish form rather than the English corruption "Assiento."

The book does not appear to advance our knowledge of the extremely important problem of the Negro's development in Africa and America.

DAVID P. BARROWS

*Le Festin D'Immortalité. Étude de Mythologie comparée Indoeuropéenne.*

GEORGES DUMEZIL. Paris. Librairie Orientaliste Paul Geuthner, 1924. (Annales du Musée Guimet, tome XXXIV). *Le Crime des Lemniennes. Rites et Legendes du Monde Égéen.* GEORGES DUMEZIL. Paris; Librairie Orientaliste Paul Geuthner, 1924.

Life, death,—we have always taken it for granted, ever since we were little boys going to Sunday-school, that Life wins over Death. It seldom occurs to us that there are other little boys, all the little boys of the immense Semitic world, for instance who just naturally take another view; Life and Death are equal, an endless alternation. And that all the suave gentlemen and coolies of Cathay absorbed, when they were little boys, the idea that the cold, somber winter belongs to the feminine principle *yin*, and the summer of the long days full of work to the masculine *yang*,—quite a different way of

looking at the universe! The reviewer would like to go even further and say that in the Hamitic world, Death wins over Life. He would point out, for instance, the preoccupation of the Spaniard, in his songs, in his religion, in his literature, with the passionate beauty of Death

There is something almost appalling in the sober consideration that some of our most fundamental, nay instinctive, psychological reactions may thus be after all, not so much the inevitable consequence of those physiological reactions one may study in the laboratory, but rather their deviation under the influence of cultural entities. Viewed thus, the study of comparative mythology acquires a new meaning. I said *sober* advisedly, for it is not enough to have a hunch and immediately launch forth a glittering view. There remains the hard work of collecting the facts, of comparing them, of interpreting, of separating the adventitious from the real thematic core. No light task, this, in the Indo-European field with its immense literature. It requires a serious student and a scholar. Mr. Dumézil is evidently such a one. I am not a qualified judge in that field, but the 264 pages of analysis have impressed me as a closely woven piece of material.

The thesis is of course that there is such a *theme* as the victory of Life over Death, in the Indo-European world. Immortality is acquired by partaking of the ambrosia, the nectar, the amrta, the beer, that drink whatever its name from the Indus to the North Sea, which is the appanage of the Gods. The Gods are the Immortals. The others who do not drink it, are the Mortals. That theme with all its *variants* and *doublets* forms a *cycle*, which can be recognized, and, purified of all historical reinterpretations to suit particular philosophies and religions, can be traced all over the Indo-European world. And all over this world it is marked by a series of *mythes*, legends, rites, religious dramas centering about the Feast of Spring, in other words celebrating the rising of the sap, the awakening of nature after its death.

I should confine myself to a mere review, but I cannot resist the desire to point out that in interpreting the rites, ceremonies and customs of our own "*peaux-rouges*," as they still quaintly call them over there, we, too, often neglect to divest ourselves entirely of the psychological viewpoint we have unconsciously inherited through our Indo-European training. To make my meaning clear, and even say more than I mean: Indians, for instance, detest corpses and death



and all mention of it; true enough, but not because Death *shocks* them, shocks their ideal belief that Life must win. No, their reaction is rather, I fancy, like the neurotic behavior of cattle and horses over a corpse on the trail, even blanched bones with the merest scraps of rotting flesh still hanging. Ask any cow-boy! An animal reaction, not the result of a belief. Or again the ceremonies around the vernal equinox in Taos, they do not celebrate the victory of a glorious new Sun over the old dead one. He enters into new duties, that is all.

The work is divided into three parts. The first establishes and describes the cycle. The second, the longer and more exhaustive part, is given over to a critical sifting of all the historical evidence. The third part, which is perhaps the most interesting for the lay reader, describes the ensemble of the ceremonies constituting the Feast of the Ambrosia among the divers peoples of the Indo-European world, and also gives an excellent essay of interpretation. The print is good and clear, and there is an Index. It is altogether a major piece of work.

The other study is a shorter work, by the same author, in fact a simple monograph of 70 pages, but also done with care and studiousness. The crime of the women of Lemnos was the murder of their husbands. They murdered their husbands because their husbands had left them. Their husbands had left them because they had a bad smell in their armpits, some say in their pudenda. This was a punishment from the Gods. All of this is symbolic: an old feast of vegetation, during which of course the males must stay away from the females, voluntarily in order to help magically the fecundity of all beings in nature. The Greeks, not understanding any longer the real esoteric meaning of this archaic ceremonial, built around it a lot of fabulous history. As in the other work, the thesis is reinforced by a great deal of scholarly and critical examination of texts.

JAIME DE ANGULO

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## DISCUSSION AND CORRESPONDENCE

### FATHER MORICE, AND THE SIKANNI

In a recent issue of this journal Father Morice has criticised a discussion of mine which included some mention of the Skanni Indians of the British Columbia plateau.<sup>1</sup> Distrusting my competence, he checked the references I had afforded him, to "control" them, and is shockingly disappointed that on every page of reference he does not find Sakanni corpses blazing up as evidence.

After my comparative note to the effect that "in Harmon's time Sikanni practice was the same as that of the Carriers," I directed the reader first to a statement of Harmon's to the effect that the Sikanni did not cremate; second to a description by Harmon of a Carrier cremation; third, to a description by Harmon of a Sikanni cremation. Inadvertently I omitted the reference I then had to a further statement by Harmon to the effect that the Sikanni cremated; this would probably have helped Father Morice. A discussion of Harmon's data would have been desirable in my article, but space forbade. However, it now seems necessary to give more space to the Sikanni, and explain why I reach conclusions from Harmon's data that are quite opposite to Father Morice's.

In 1810, Harmon passed through Peace River gorge and proceeded on to Mac Leod's Lake, thence to Stuart's Lake. On November 18, 1810, he had just reached Stuart's Lake, which was Carrier territory. On the Peace River and at McLeod's Lake he had been in the territory of several eastern Sikanni bands. On the date mentioned, having for the first time seen Carriers, he noted in his journal, that "The Sikanni bury, while the Tacullies burn, their dead."<sup>2</sup> But in the same journal, a year later, Monday, January 13, 1812, he describes the cremation of a Sikanni.<sup>3</sup> And in his general "Account" of the Indians west of the Rockies, written after his sixteen years of service with the Northwest Company, eight of which were spent west of the Rockies, he wrote of the Sikanni that:

they frequently intermarry with the Carriers, and pass a part of their time with them at their villages. They have also adopted many of the customs of the Carriers, one of which is to burn the dead...<sup>4</sup>

<sup>1</sup> See W. C. Mac Leod: *Certain Mortuary Aspects of Northwest Coast Culture*, *American Anthropologist*, Jan., 1925; and A. G. Morice: *On Cremation*, *ibid.*, Nov., 1925.

<sup>2</sup> Harmon: *Journal*, Reprint, 1904, p. 161.

<sup>3</sup> *Ibid.*, pp. 180-181.

<sup>4</sup> *Ibid.*, pp. 265-266.

Now conceivably, of course, myself, Father Morice, and Harmon all err in speaking of any trait of culture as characteristic of *the* Sikanni. The Sikanni were made up of a number of politically separate bands who must have varied culturally. I thought myself for a time that perhaps those eastern Sikanni bands whom Harmon had met on his way to Stuart's Lake must probably be excluded from among those who cremated, since after passing through their territory he had stated in his journal that they were in contrast to the Carrier in not cremating. But his statement contradicting this appearing in his general "Account," *which records his maturer observation*, plainly means to include the Yutsutqenne band who owned the territory from the shores of McLeod's Lake and the bend of the Frazer River over the Rockies and for some distance east of the Rockies where they made contact with their very near relatives the Beaver and Sarsi Indians. The Yutsutqenne, like the other Rocky Mountain bands of the Sikanni, wintered on their lands east of the Rockies, and summered on those to the west.<sup>5</sup> This is an important fact, inasmuch as, in contrast to the coast, summer was the season of secret society and other festivals on the plateau, rather than winter,—for economic reasons. Harmon, of course, by the time he first noted cremation among Indians,—at Stuart's Lake,—may merely have failed to learn of it among the few eastern Sikanni he had already met before the winter of 1810. He may even have seen some disposal of Sikanni corpses by methods other than cremation; for as I pointed out, "cremating" peoples do not cremate all corpses.

How far east and southeast the practice of cremation had spread among the bands of the Sikanni may perhaps be left in question. I think it likely, however, that with the Yutsutqenne it has been *carried to territory east of the Rockies*. But the greater part of the Sikanni did not, as Morice implies, live east of the Carriers; they lived rather, north of the Carriers. Nor were they all salmon-less wanderers, as Morice states. Nor, as the same ethnologist will have

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<sup>5</sup> See Harmon, pp. 265–266, and Morice: *Western Dene*, 1893 Transactions of the Canadian Institute, pp. 28, 46. The Yutsutqenne, Morice notes, incidentally, were the manufacturers of the better grade of Carrier stone axes, which the Carrier got through trade from the Yutsutqenne. The Carrier also got good axes from the Kitiksan. The Yutsutqenne lands also stretched south of McLeod's and Kerry's Lakes. Aside from their adoption of "many customs," including cremation, Harmon adds that the Sikanni "differ but little . . . in dialect, manners, customs, etc.," from the Beaver Indians east of the Rockies.

it, were they dependent only on the Carriers for contacts with the coast civilization. Tolmie and Dawson on their map of some years ago<sup>6</sup> show the Sikanni country in the northwest as taking in the country south of Bear Lake, proximate to the upper Skeena and the Babine Rivers, their boundary thence running through the bend in Tacla Lake, and on further southeasterly south of Lakes Carp, McLeod, and Kerry. The eastern bounds of the Sikanni fell west of Lake Moberly, according to these map-makers, but Harmon met Sikanni some distance east of this lake, at a point 56° north, and 121° west; this band summered west of the Rockies as did the McLeod Lake band. Harmon also visited a village of somewhat *mixed* population, mostly of Sikanni, some distance southeast of Tacla Lake, evidently nearer Stuart Lake than Dawson's and Tolmie's map would indicate that Sikanni territory extended. It would seem that during the first half of the 19th century the Sikanni lost ground. During this period there grew up a village on Bear Lake, near the fort of the fur traders, a village of mixed population, Babine and Tsimshian. The land on which these Ahtenas or Atnas (Dene for "foreigner," and applied to several peoples) settled was admittedly Sikanni territory, and they lived and hunted on it only by consent of the Sikanni. In Harmon's day, however, these "Atnas" warred on the Sikanni, as did the Carriers, Beavers, and Cree, and the Sikanni were presumably unable to keep the immigrants away from Bear Lake. At least those Sikanni who lived on confluent of Stuart's Lake were the possessors of salmon streams. While those who lived in the vicinity of Bear Lake were independent of the Carrier for contacts with coast culture, inasmuch as they had geographical contact with the upper Skeena Tsimshian and the Tahltan Nahanni who were carriers of Tlingit culture.<sup>7</sup>

The one actual cremation by Sikanni which Harmon describes was the cremation of the body of a man who had died in Carrier territory and who was cremated in Carrier territory. But only half a day's march from Stuart's Lake up the Tachy River (a salmon stream) was the mixed village composed largely of Sikanni.<sup>8</sup> He *may* have come from this village; or, *perhaps*, he was some Carrier's

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<sup>6</sup> Dawson and Tolmie: Comparative vocabularies of the Indians of British Columbia, 18, appendix II.

<sup>7</sup> See Dawson and Tolmie; Morice, 1893; Harmon, p. 156.

<sup>8</sup> Harmon, p. 179; visited on Tuesday, January 7, 1812.

son-in-law and living at least temporarily with his father-in-law. This was in mid-winter. Morice *states* that the two wives of this man were Carrier women. This "fact" is as far as I can see a product of his imagination. We know nothing of this. Yet Father Morice tells us further that they married him for the sake of "his extensive hunting grounds," and that "on his demise, they and their fellow tribesmen followed their own mourning rites and cremated his remains as if he had been one of them." Father Morice should continue this interesting, though imaginary, biographical study and let us know the source of the material; I cannot find it in Harmon.

The biography given by Morice bears internal evidence of having been imaginary. Because according to Carrier (and Sikanni) custom, it was not the relatives of the survivor, but the relatives of the deceased, who arrange for a cremation, take charge of the ceremonies, supervise the surviving spouse during mourning, and pay the heavy expenses of the whole affair. So, *qu'importe*,—even if the widows were as they may well have been, Carrier women? *It was the relatives of the deceased who made use of cremating and those relatives of the deceased were, like the deceased, Sikanni.* I had this salient fact put in italics in my original article. "Disastrous distraction" is certainly not peculiar to me among "scientific writers." In the description of the Sikanni given by Harmon, Harmon actually shows us the brother of the deceased functioning ceremonially, and vividly narrates how "the relatives of the deceased" tormented the widows of the deceased, especially that one of the two widows who had during the lifetime of her husband repeatedly run away from his house and home! This second woman was repeatedly forced back upon the flaming pyre. The unfortunate widows of this Sikanni certainly must have dreaded the terrible ordeal of the cremation and the long years of virtual slavery to which they would be subjected by way of mourning, pending their final remarriage to one of the brothers of their dead husband.

Father Morice in his criticism still insists that the mourning customs associated with Carrier cremation are the result of diffusion from the Tsimshian. This *may* well be; but I must continue to point out that no published evidence for the existence of these mourning customs exists; at any rate I have never been able to find the "writings of Boas and others" to which Father Morice makes vague reference, and I think I have covered a great part of the relevant literature which might contain the evidence. If the customs did obtain among



the Kitiksan Tsimshian, we should like to know further if they obtained among any other Tsimshian tribes,—among the Nassqa groups, for example?

WILLIAM CHRISTIE MAC LEOD

#### SOME COSMOGONIC IDEAS OF THE DAKOTA

It appears that the Dakota conception of the earth and the known and unknown regions about it was somewhat as follows: The known and visible world lay all about us in every direction in four quarters, to the north, the east, the south, and the west.

In the region of the north, very far away, lay the country of the Buffalo. It was believed that there the buffalo were a nation, just as there were nations of human beings here in this region of the known world. It was believed that many of the buffalo nation migrated southward in winter time from that faraway unknown region of the North, across this immediate known region of human nations, toward the equally remote and mysterious region at the South, and that in summer time they returned thence again to their own homeland in the North.

It was believed that the far-away unknown region of the South was the dwelling place of light. It was said that there lay a great circular area, red in color. This area was called the Red Circle. It was said that from the Red Circle light streamed toward the North in a yellow band which was called the Yellow Road. Crossing the Yellow Road at right angles from the region of the East to the region of the West there lay extended a great mystic or symbolic serpent marked with bands of black and yellow. This was called the Black and Yellow Road.

At the ultimate region of the West was the dwelling of the mysterious Thunderers. This was argued from the meteorological fact that the storms and electrical disturbances uniformly sweep across the earth from east to west in the country known to the Dakota.

At the ultimate region of the East was the realm of Evil Powers. Somewhere in the eastern region, surrounded by ocean, was an island. On this island there dwelt, besides other gods, the four gods of horses, one white, one black, one yellow, and one red.

Thus the four quarters were the dwelling places of different mysterious powers or gods. That is why offerings of smoke were made toward the four quarters. It was in recognition of these several mysterious powers, and in propitiation of them.

A certain man who had dreamed of the Red Circle always wore a small red circle or hoop attached to his belt as an emblem of his mystic dream. In his dream he had a vision of a mystic buffalo from the mysterious Buffalo Land of the North headed southward, traveling on the Yellow Road toward the Red Circle, the area of light.

Mystic dreams or visions were a common source of origin of personal names. Thus, the man who had had this vision of the buffalo gave to the infant son of his sister the name *Canhdeška-wanyag-mani* in allusion to the vision which he had. This compound is made up of three words: *canhdeska* meaning hoop or circle (here alluding to the Red Circle, the area of light); *wanyag*, the act of seeing; and *mani*, the act of walking. The translation of the name might be "Seeing-walking-toward-the-circle." Of course this combination of words has no sense or meaning apart from a knowledge of the dream to which it alludes, and of the popular beliefs and the psychologic setting of the dream. Because of his dream, when he was called upon to give a name to his infant nephew, he gave the name *Canhdeška-wanyag-mani*.

The man who dreamed of the buffalo thus believed himself to be mystically affiliated with the buffalo, that he was in some mystic way, himself a buffalo. For that reason he wore the emblem of the red circle and other insignia pertaining to the buffalo. The emblem consisted of a small wooden disk painted red. To this disk was attached a down feather dyed red. Also attached all round the edge of the disk were the burrs of wild licorice (*Glycyrrhiza lepidota*). Wild licorice burrs are emblematic of the buffalo because they are considered to be an essential part of the buffalo world. They abounded in the grazing grounds of the buffalo and consequently the curly hair on the forehead of a buffalo was often matted with these burrs.

The significance of the parts of this emblematic object was this. The small red disk signified the Red Circle, the area of light in the region of the South, which was the destination of the mysterious winter migration of the buffalo. The down feather dyed red signified the shafts of light issuing from the Area of Light. The licorice burrs signified the buffalo, which in some mysterious way was drawn on its annual migration toward that mystic Red Circle.

Because the licorice burrs were so connected with the buffalo they were regarded with reverence by those who had been favored by buffalo dreams or visions, and were never treated by them with indifference. When, in walking, a man who had had a buffalo vision

found that licorice burrs had attached themselves to his clothing, he did not carelessly throw them away, but treated them with respect, saved them, and carefully put them away. Whenever he attended any public social or official function, he took some of these burrs and attached them in the hair over his forehead, thus attesting his mystic connection with the genius of the Buffalo as manifested to him by the dream which once had been granted to him.

MELVIN R. GILMORE

BEING AN ACCOUNT OF AN HIDATSA SHRINE AND THE  
BELIEFS RESPECTING IT

In December, 1908, there appeared in the *Memoirs of the American Anthropological Association*, Volume II, Pt. 4, an account of an Hidatsa shrine which had been acquired by the Museum of the American Indian, Heye Foundation. At the time the account was published I was unable to form a judgment concerning the statements made, for at that time I had neither seen the shrine nor been in the country of the Hidatsa tribe, which is North Dakota. But since that time I have spent seven years in North Dakota and have become familiar with the native flora of all that region. I have also had opportunity now to examine the shrine since I have been on the staff of The Museum of the American Indian for the past three years.

From these circumstances, I have had opportunity to discover several errors in the published account, which ought to be corrected; "better late than never." Certain plants pertaining to the shrine are erroneously identified. It is obvious that if a plant is mentioned in any ceremonial or other ethnological connection, the correct identification should be made, otherwise serious misinterpretation will be made of the aboriginal philosophic thought connected with the use.

On page 281 of this Memoir, near the bottom of the page, a plant is mentioned by the popular name, "pennyroyal," and it is there said to be an aquatic plant. The fact is that the plant, dried specimens of which are found in the shrine, is not pennyroyal (*Agastache anethiodora* (Nutt.) Britton); and neither *Agastache* nor *Hedeoma* is an aquatic plant. The plant found in the shrine (*Agastache anethiodora*) has its habitat in damp, partly wooded ravines. Throughout the paper, wherever the plant is mentioned by the common name, "pennyroyal", this correction should be made, or it should be read with the understanding that it is really *Agastache* and not *Hedeoma*. Such mention will be found near the top and also near the bottom of

page 282, at the bottom of page 283, near the bottom of page 290, near the top of page 293, near the top and near the middle of page 294, in paragraph 3 on page 296, in paragraph 4 on page 297, and in paragraph 2 and paragraph 4 on page 299.

On page 284, paragraph 3, we read "Series 1 is a bag containing a bearskin with a bunch of wild turnips." Now the article to which this statement refers is a bunch of dried tipsin roots (*Psoralea esculenta*), which is not a turnip, not even a member of the Crucifer Family, but is a member of the Bean Family which has a food storage root that is edible and palatable, and was indeed one of the most important of native prairie foods, often mentioned by the early Missouri River travelers, and called *pomme blanche* or *pomme de prairie* by the French voyageurs. This same article, tipsin, is again mentioned on page 301 in line 10 and miscalled "wild turnip." In both these citations "wild turnip" should be cancelled and "tipsin" written in, with the identification by the scientific name *Psoralea esculenta*.

On page 285 there is a description of the relic pipe of the shrine. There it is stated that the pipe "is made from the central portion of a hickory log." The fact is that no hickory trees grow in the Hidatsa country nor within several hundred miles distance from it. The wood of this pipe looks like ash, which is in fact the species of wood always used for making pipestems by the Hidatsa and all other tribes in that region.

On page 308, line 21, it is stated "The man went outdoors and pulled sage . . .". The plant to which this statement refers is not sage (*Salvia sp.*), nor any relation to it, but wild-sage, so called, (*Artemisia gnaphaloides*), which is a member of the Compositae, no relation to *Salvia*. On page 309, line 15, the same plant is again mentioned by the misnomer "sage," again on page 316, line 4.

On page 314, line 11, a plant is mentioned as "black medicine." The plant intended is the western red baneberry (*Actaea arguta* Nutt.).

A footnote on page 283 says "In one myth the wren appears as a thunderbird." My own information is not that the wren is itself one of The Thunderers, Thunderbirds, but that it is a servant or messenger of The Thunderers.

MELVIN R. GILMORE

#### FINAL NOTES ON THE CENTRAL ALGONQUIAN DREAM DANCE

Owing to the recent tragic death of Mr. Alanson Skinner I feel a certain delicacy in answering his new strictures (AMERICAN ANTHRO-

POLOGIST, N. S., 27, p. 340 et seq.) regarding the date of the origin of the Central Algonquian Dream Dance. Nevertheless certain issues have been raised that require an answer.

Mr. Skinner is quite right in assuming that I had not verified the date (about May, 1876) given by Armstrong as the one stated by the Sioux girl; and he is also right in what he says concerning the whereabouts of General (Lieut. Colonel) Custer at this time. The Bureau of American Ethnology has been informed by the Adjutant General of the U. S. A. that the records do not show there was any engagement between Custer and the Indians in May of that year. Hence an error is apparent. Nevertheless, I can substantiate the date in another way. The last season I was among the Chippewa (Ojibwa) at Odanah (near Ashland, where Armstrong published his book) and there became acquainted with an old Chippewa, John Crow, whom I interrogated regarding the date of the dance. He replied he knew the time precisely as his daughter was born somewhat before the time, viz. 1876, which agrees absolutely with the date given above. John Crow states he first saw the dance at the Moose River, Minnesota. In unrefined phonetics it is called Bwan nimiidiwin (Sioux Dance). This is of course supported by the Wisconsin scare of 1878, and the correspondence the Commissioner of Indian Affairs placed at the disposal of the Bureau of American Ethnology, from which, I repeat, "this new Sioux dance which is said to be a religious institution" was responsible in large measure for the Wisconsin scare of 1878. I mention this once more because Skinner in his reply ignores this evidence I gave in the *AMERICAN ANTHROPOLOGIST*, N. S., 26, p. 294. The date therefore remains unaffected, but the connection with Custer must be at least partly in error.

The Indian troubles in Wisconsin in 1862 and 1863 were perfectly well known to me, but I did not and do not see any reason why they are inevitably concerned in the date of the Dream Dance, for I have definitely disproved the statements of Mr. Skinner's informants regarding the presence of the federal troops on the Menomini reservation in 1862 and the alleged removal of the Indian agent. Accordingly, I think further statements by said informants regarding historical matters must be definitely confirmed before they are accepted; and I confess I do not think they have been. Mr. Skinner has suggested that it was possibly the state militia instead of the federal troops that were on the reservation. It was for him to substantiate this or say nothing. I may add that he apparently did not see that I have

previously furnished proof that the agent remained for at least a few years after the time under discussion; wherefore Mr. Skinner's later conjecture, that he may have resigned (and not have been removed) is disproved. In justice to Mr. Skinner it should be said that he finally suggested that the wish for this removal was father of the thought.

I fail to see any connection of the case of Alfred Kiyana with the points at issue. Nevertheless, as this raises fresh issues, I answer it. I do not think it can be denied that he foisted off a few spurious antiques on myself as well as one other anthropologist. Most of the specimens obtained from him, however, are genuine. His reliability as an informant is quite another matter. I have lists of some hundred of personal names belonging to the various Fox gentes by him, written some years apart. In no case has a name been assigned to a different gens. Wherever membership in the tribal dual division was given, it has been corroborated either directly or indirectly; another informant challenged about three cases. I have also lists of the members of many of the Fox ceremonial organizations written by him many years apart; these lists when of the same organizations agree closely with each other; checked by another informant, only two were claimed to have been given wrongly. The lists of names for dogs and horses appropriate when their owners belong to certain gentes have also been approved by another informant and checked in some instances by actual knowledge. In fact all ethnological data given by Kiyana which I could in any way control have agreed very closely with those of other informants or printed sources (especially on mortuary customs, the calendar, natal and catamenial observances, system of consanguinity, the *wa li no wi we ni*, etc.). The myths and tales by him also compare favorably with those of the same subjects by other informants. I once received a duplicate origin myth of the buffalo Head Dance of the Thunder gens of the Fox Indians, written years apart. Another informant preferred the first version, stating that the second one was confused with the ritualistic origin myth of another ceremonial. He added, however, that half the second version was correct in his opinion, including all the songs and speeches. I am ready to grant Kiyana has a better literary style than at least certain other informants, e. g. Bill Leaf who tells the plots well enough, but whose sentences frequently are in broken Fox. Finally, there are two other things to be considered. Among the Fox Indians if any one tells a story or gives ethnological information that deviates by a hair's

breadth from what another informant considers correct, he is at once denounced as an unmitigated liar. When an informant is caught giving information, he is roundly abused; wherefore he usually says he has told a pack of lies, though his original statements have been verified a dozen times. The situation at Tama is unique.

TRUMAN MICHELSON

#### THE LAPHAM RESEARCH MEDAL

At its Silver Anniversary meeting, held on March 15, 1926 at Milwaukee, the Wisconsin Archeological Society conferred for the first time the Lapham Research Medal. Almost at the inception of the Society the establishment of a medal was suggested. The accomplishment of this, however, is very largely due to the efforts of Dr. E. J. W. Notz, now president of the Society.

For the design of the medal we are indebted to Mr. Raymond Maas, a Milwaukee artist, and for its excellent execution, to Mr. L. Bunde, both of whom are active members of the Society.

The obverse of this medal bears a relief of Dr. Increase Allen Lapham, Wisconsin's first noted archeologist, whose interest in Wisconsin's antiquities covered the period from 1836 to 1875, the date of his death. Around the relief is the inscription, "Lapham Medal, Wisconsin Archeological Society," surrounded by a representation of a string of wampum.

The reverse of the medal bears two symbolic figures. Above is a representation of the Thunder-bird, so characteristic of the Indian lore of the Great Lakes region and so frequently found in Wisconsin as a huge effigy mound. This figure typifies the upper world spirits, the effigy mounds, in which the state is so rich, and is a most fitting symbol of the archeological activities of the Society. At the bottom is a double panther motif, characteristic of the woven buffalo-hair bag of the region. This typifies the underworld deities, and fittingly symbolizes the State's ethnology. Between these two symbolic figures and within another encircling string of wampum is the inscription, "Awarded to — — for distinguished service in anthropological research."

Perhaps the most symbolic feature of all, is the metal, copper, in which the medal is struck. In aboriginal times the continent's great source of copper was constituted by the primitive, open pit mines of northern Wisconsin, the Michigan peninsula and Isle Royale. Further, the State of Wisconsin is noted for the great number of

copper implements and ornaments found in its archeological remains. What should be more fitting, therefore, than that this medal should be struck in copper.

The medal was awarded upon this occasion to the following members of the Wisconsin Archeological Society, each of whom has done signal service in the survey, preservation and study of Wisconsin's antiquities, and in the State's ethnology: Messrs. George A. West, Charles E. Brown, George L. Collie. S. A. Barrett, H. E. Cole, John P. Schumacher, George R. Fox. Alphonse Gerend, W. G. McLachlan and Halvor L. Skavlem.

The awarding of this medal ended a most interesting Silver Anniversary program, in which Dr. Edward Sapir, Associate Professor of Anthropology of the University of Chicago, spoke on "The Anthropological Viewpoint," and Mr. George A. West, a past president and one of the original founders of the Society spoke on "The History of the Wisconsin Archeological Society."

While the Lapham medal was awarded upon this occasion only to those whose service had been primarily in the Wisconsin field, it is probable that the scope of the award will be widened in the future and that workers outside the State will receive this award.

S. A. BARRETT

#### THE PERSISTENCE OF TRADITION

In a former number of the *ANTHROPOLOGIST* (Vol. 26; 295 ff.), the writer pointed to the rise of a tradition to the effect that Eugene Dubois had discovered *Pithecanthropus erectus* in 1894 and not, as is more commonly alleged, in 1891-2, a tradition expressed by several writers of different nations in numerous works. Those interested in the conservatism of a culture trait may rejoice that said tradition of 1894 still lives. Thus in his *Lectures on the Evolution of Man* (Oxford, 1924), G. Elliot Smith follows the tradition that Dubois found these remains in 1894. Since Dr. Smith is an ardent diffusionist the motive for the choice may be mixed.

Our compatriot, Dr. Wilder, however, is even more of a diffusionist in practice for he follows both traditions, that of 1894 which he championed in *Man's Prehistoric Past* and the earlier tradition of 1891-2. Thus on page 136 of his *Pedigree of the Human Race* (New York, 1926) Prof. Wilder refers to the find of Java man as made in 1891-2, but on page 152 of the same book he lapses, or moves forward to the view that it was in 1894. On the latter page he says:



Haeckel's 60th birthday occurred in 1894, and by the most singular coincidence in anthropological history, some remains were being unearthed at the same time in the island of Java, which corresponded in general, though not in detail, with this now famous painting (of *Pithecanthropus Erectus*). Eugene Dubois, a military surgeon attached to the Dutch Army, was requested by the Governor General of the Dutch East Indies to undertake the collection of Holocene and Pleistocene vertebrates, and it was while engaged in this work that he made this sensational discovery. The remains consisted of a skull-cap, etc.,

wherein there is further reference to Java man of 1891-2.—Or shall we accept the tradition of 1894?

W. D. WALLIS

## ANTHROPOLOGICAL NOTES

At a meeting of THE AMERICAN PHILOSOPHICAL SOCIETY, held at Philadelphia, April 22-24, 1926, the following papers of anthropological interest were presented:—

Progress in the Studies of Races and Race Mixtures, with Special Reference to the Work Carried on by Harvard University.

By ERNEST A. HOOTON.

The Peopling of Asia in the Light of New Evidence.

By ALEŠ HRDLÍČKA.

Culture Problems of Northeastern America and Their Bearing upon Asiatic and Eskimo Diffusion.

By FRANK G. SPECK.

Sealevel Surfaces, and the Problem of Coastal Subsidence.

By DOUGLAS JOHNSON.

The Maya Civilization and Its Relation to the Surrounding Cultures.

By ALFRED M. TOZZER.

The Prehistoric Peruvians.

By CHARLES W. MEAD.

The Cultures of Northwestern South America and Their Relations to Central America.

By MARSHALL H. SAVILLE.

The Aztecs and Their Predecessors in the Valley of Mexico.

By ZELIA NUTTALL.

The Hittite Problem.

By GEORGE A. BARTIN.

THE FIELD MUSEUM of Chicago has recently installed a new African Hall. The nucleus of the African material is the Jan Kleykamp collection from the Cameroon district acquired by the German official staff during German colonial occupation. It includes specimens of the industrial arts, especially wood and ivory carving, weaving and knitting, beadwork, iron forging and metal casting, and a large number of weapons, utensils, and musical and ceremonial objects.—*The Museum News*.

THE MUSEUM OF THE AMERICAN INDIAN, Heye Foundation, New York, has recently installed material excavated last summer by

M. R. Harrington of the Museum Staff, from Lovelock Cave, Nevada. The material, gathered from fourteen feet of deposits, includes basketry, a mummy wrapped in blankets of deer and rabbit skins, sacred bundles, and hunting paraphernalia. Of unusual interest were a number of decoy ducks. The first installment of material from Pueblo Grande de Nevada and from a pre-historic salt mine near St. Thomas investigated by Mr. Harrington during the summer has also been placed on exhibition.

Drs. Fewkes, Swanton and Michelson and Mr. Hewitt, of the U. S. Bureau of Ethnology, have been notified of their election to honorary membership in the Hermann Barth Gesellschaft, of Vienna.

PROFESSOR THEODOR MOLLISON, of Breslau, has been called as successor of Rudolf Martin at Munich.—*Science*

H. W. KRIEGER, curator of ethnology in the U. S. National Museum, has left for Alaska, where he is going under the auspices of the U. S. Bureau of Ethnology for the purpose of treating and restoring the totem poles of the National Monument at Kasaan, in southeastern Alaska.—*Science*.

MR. D. S. DAVIDSON has been appointed Instructor in Anthropology at the University of Pennsylvania.

THE HUXLEY memorial lecture before the Royal Anthropological Institute was given this year by Sir Arthur J. Evans, F.R.S., at the rooms of the Royal Society, November 24, on the subject of "Early Nilotic, Libyan and Egyptian relations with Minoan Crete."

DIAMOND JENNESS has been appointed chief of the division of anthropology of the National Museum, Department of Mines, Ottawa, Canada, to fill the vacancy created by the recent resignation of Dr. Edward Sapir. In addition to the administrative duties of this position, Mr. Jenness will continue the anthropological investigations of the Arctic and Sub-Arctic Eskimos, on which he has been actively engaged since 1913.—*Science*.

DR. MARGARET MEAD, now studying among the Samoans as an anthropological fellow of the National Research Council, has been appointed assistant curator of ethnology of the American Museum of Natural History. She will take up her duties in September.

Word has been received of the sudden death from heart trouble of MR. JOHN MURDOCH, librarian of the Smithsonian Institution from

1887 to 1892, at his home in Alliston, Mass. Mr. Murdoch had been connected with the Boston Public Library from 1896 to 1923. As naturalist and observer, he was a member of the United States international polar expedition to Point Barrow, Alaska, from 1881 to 1883. He was the author of a report on the ethnological results of this expedition, and of parts of the report on the natural history results, besides a number of papers on Eskimo ethnology and linguistics and zoological subjects.

WE NOTE WITH REGRET the death of Alfred F. Berlin, charter member of The Lehigh Historical Society of Allentown, Pa., and a member of various archeological and anthropological societies in this country. Mr. Allen's most notable service was the assembling in the Museum of the Lehigh Historical Society of a large collection of prehistoric material originally found in the county which had been removed to other parts of the United States.—*The Museum News*.

N. A. JOYCE, deputy keeper of the Department of Ethnology of the British Museum, has left for British Honduras to study the Maya civilization of Central America.

EXCAVATIONS of the ancient pit houses at Gran Quivera, on the Mimbres, carried on by Wesley Bradfield, curator of archaeology of the Museum of New Mexico, have yielded discoveries bearing on the culture of the ancient Mimbrenos who disappeared thousands of years ago. According to *El Palacio*, the first social arrangement of architectural forms, out of which grew the modern pueblo, apparently was laid bare by the excavation of the pit dwellings which antedate the surface ruins. Some of the pottery designs have details of ceremonial costumes which appear to be related to those worn by the priests of the Mayas in Guatemala and Southern Mexico.—*The Museum News*.

Part of a prehistoric skull was recently unearthed during building excavations in London. Professor G. Elliot Smith is of the opinion that it is the skull of a woman who belonged to the late stone age. That she was left-handed is indicated by the greater development of the right side of the brain.

PROFESSOR BONTISCH-OSMOLOVSKY in an interview with a Science Service representative has stated the details of his recent find of two primitive human Neanderthaloid skulls near Simferopol, in the

Crimea, hundreds of miles to the eastward of any previous discoveries of that race of cavemen.

Some remarkable specimens from the Etowah Mounds at Cartersville, Georgia, have been found by W. K. Moorehead, director of the Department of Archaeology at Phillips Academy, Andover, Mass., and Gerald Towle. From some twenty-four burials, mostly in the form of stone cists, have been taken articles including a flint dagger twenty-six and a quarter inches in length, a copper covered wooden ball, a fourteen inch copper plate with a human figure almost Mayan in character, other copper plates and fragments of textiles, two broken stone idols, and engraved shells. The motifs exhibited in the copper designs resemble designs found in the neighborhood of the Chattanooga rather than the Ohio Valley. Engravings on a cylindrical stone are southern in concept.—*The Museum News*.

EXCAVATIONS conducted in Ross County, Ohio, by the Ohio Archaeological and Historical Museum, of Columbus, of which W. C. Mills is director, have recently yielded a number of unusual burials. Four skeletons were found wrapped in strings of large pearls. Copper ornaments included an ornamented helmet and a nose of copper. Fragments of decorated tortoise-shell and textile fabrics were also found.—*The Museum News*.

ALONZO POND reports as the first fruits of the Beloit-Sahara expedition, fifteen stone implements. These, supposedly representing Chellean culture, are said to be the only traces of lower Paleolithic culture known in the Sahara. They were found at a depth of from four to eight inches. Nearby, on the surface, were stations of a later date. It is hoped that the finds of this expedition will throw light on the migrations of early men, particularly the Neanderthal and Crô-magnon men, as no well authenticated remains of these types have yet been recovered from northern Africa.

JOSEPH B. THOBURN, secretary of the Oklahoma Historical Society, reports the completion of the excavation of a mound in the northern part of the state. The work not only yielded a fine collection of material and data but resulted in the discovery of other mounds, caves, villages, and shop sites.—*The Museum News*.

THE collections made by Dr. Aleš Hrdlička in South Africa have reached the U. S. National Museum. They comprise fragmentary fossils of apes from the Taungs (Buxton) quarry; paleolithic im-

plements from Bechuanaland and the Zambesi, and a series of decorated baskets from Northern and Southern Rhodesia.

The "paper survey" of Indian sites of eastern Pennsylvania begun last year by the Wyoming Historical and Geological Society, Wilkes-Barre, Pa., under the charge of Arthur C. Parker, director of the Municipal Museum, Rochester, N. Y., has, by means of questionnaires, succeeded in obtaining a large amount of information concerning Indian burial grounds, village and camp sites, caches, petroglyphs etc. in eastern Pennsylvania. The next step will be the investigation of these sites.—*The Museum News*.

AN INDIAN THEATRE is being planned by the School of American research to provide a permanent setting for the Indian dramatic ceremonials which are an annual feature of the Santa Fe Fiesta. As a first step toward providing a place for the religious dramas, ceremonial races, games, and processions, the School has acquired a tract of four hundred acres overlooking the city. The Indian theatre, which will accommodate an audience of five thousand, has been designed by Rafael Yela, a young Guatemalan sculptor sent by the Mexican Government to study at Santa Fe. His model is based in principle upon the ancient Greek Theatre and in architectural motif upon the semicircular community structures in the Southwest.—*The Museum News*.

A PUBLIC INDIAN MUSEUM will shortly be established at Mandan, N.D., under the sponsorship of local Masonic bodies, the nucleus for which will be provided by the extensive collections made by I. N. Steen of Carson, A. B. Welch and F. H. Motsiff, of Mandan.—*The Museum News*.

A COLLECTION OF INDIAN artifacts representing the cultures of various Pacific Coast tribes has been donated to Washburn College, Topeka, Kansas, by an alumnus, George W. Reed, Jr., now archaeological and assistant librarian of the State Historical Society of Idaho.

DR. STEPHANIE MARTIN-OPPENHEIM, the widow of the late Professor Martin, is editing the second edition of his *Lehrbuch der Anthropologie* and would be greatly obliged if all colleagues would continue to send her relevant publications. Her address is Laplacestrasse 24, München O.27, Germany.



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## A NEW OBJECTIVE METHOD FOR SHOWING SPECIAL RELATIONSHIPS

By

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**A**S LONG ago as 1889, the British anthropologist, E. B. Tylor, called attention to the growing need of more exact methods for treating cultural data. In the *Journal of the Royal Anthropological Institute*, Vol. 18, page 245, he writes,

For years past it has become evident that the great need of anthropology is that its method should become strengthened and systematized.

Revolutionary changes have come about in ethnological thinking, since Tylor's day. New theories, new concepts, and painstaking field studies have radically modified our ideas of culture processes in the last decade, and ethnology has consistently tended to become more and more objective. Yet, it is a truism that in every science there is always room for further refinement of method. Accordingly, the writers believe that the method which forms the subject of this paper is a further step toward that purely objective treatment of data which is so desirable.

Before proceeding with the detailed explanation of the method, it may be well to say a few words regarding our preliminary work. The process was developed in our seminar under the direction of Professor A. L. Kroeber of the University of California. Early in the work of the seminar, we took up for discussion a recent monograph by Ralph Linton on "The Material Culture of the Marquesas Islands," *Memoirs of the Bishop Museum*, Vol. 8, No. 5 (1923). In this monograph (pp. 449-457) Linton gives a comparative table of the material culture of six Polynesian groups: the Marquesas, New Zealand, Hawaii, the Society Islands, Samoa, and



Tonga. From the first, this table engaged our attention and we endeavored to adduce independent ethnological conclusions from it. It was soon apparent, however, that ordinary methods in the hands of persons not specialists in the Polynesian field were quite inadequate to cope with the material contained in the table. Accordingly, we turned to statistics for aid in the hope that some satisfactory means could be discovered of correlating the mass of tabulated data. In this hope we were not disappointed, and the method outlined below is the result of our work. During this phase of our task we were ably advised by Dr. Raymond Franzen of the Education Department at the University of California, and wish to take this opportunity of expressing our appreciation for his generous co-operation.

The process which we finally adopted and applied to the data is an extension of the well known "mean square contingency" method of correlation and gives its results in terms of probabilities. The detailed explanation of the process which follows will show exactly how it is to be applied.

In its original form, Linton's table was unsuited for our treatment and we were obliged to modify it accordingly as will be explained.

The following is our modification of Linton's table (pp. 449-457 in his book.)

TABLE I

	M.	N.Z.	H.	Soc.	I S.	T.
1. Platform present. . . . .	1	0	1	1	1	1
2. Platform constant. . . . .	1	0	1	0	0	0
3. Platform rare. . . . .	0	0	0	1	1	1
4. Platform rectangular . . . . .	1	0	1	1	0	x
5. Platform oval. . . . .	0	0	0	0	1	x
6. Shape rectangular, house. . . . .	1	1	1	1	0	0
7. Shape oval, house. . . . .	0	0	0	1	1	1
8. Shape round, house . . . . .	0	1	0	0	1	0
9. Ridge pole. . . . .	1	1	1	0	1	0
10. End posts. . . . .	1	1	1	1	0	0
11. Indirect ridge pole . . . . .	0	0	0	1	0	1
12. Rigid triangular support. . . . .	0	0	1	0	0	0
13. Three posts in center and apse. . . . .	0	0	0	0	1	0
14. Entrance, end. . . . .	0	1	1	0	0	0
15. Entrance, side. . . . .	1	0	1	1	1	1
16. Door, wooden slide. . . . .	1	1	0	0	0	0

	M.	N.	Z.	H.	Soc.	I.	S.	T.
17. Door, mat. . . . .	1	0	0	0	0	0	1	
18. Interior permanent division. . . . .	1	1	1	1	0	0		
19. Ornamental lashings. . . . .	1	0	1	1	1	1		
20. Carved posts. . . . .	1	1	0	0	0	0		
21. Carved panels. . . . .	0	1	0	0	0	0		
22. Woven panels. . . . .	0	1	0	0	0	0		
23. Painted rafters. . . . .	0	1	0	0	0	0		
24. Stools. . . . .	0	0	1	1	0	0		
25. Soft Pillows. . . . .	1	1	1	0	0	0		
26. Wooden pillows. . . . .	1	1	0	0	0	0		
27. Legged pillows. . . . .	0	0	0	1	1	1		
28. Store house on posts. . . . .	1	1	0	1	0	x		
29. Men's house on posts. . . . .	1	0	1	0	0	0		
30. House decoration. . . . .	1	1	0	0	0	0		
31. Sacred house, high roofed. . . . .	1	0	0	0	0	0		
32. Sacred house, like dwelling. . . . .	0	1	1	1	1	1		
33. Sacred house, tapa, pyramid. . . . .	0	0	1	0	0	0		
34. Canoes, five pieces. . . . .	1	1	1	0	0	0		
35. Canoes, dugout. . . . .	1	1	1	0	0	0		
36. Plank canoe. . . . .	1	0	1	1	1	1		
37. Bow, long projection. . . . .	1	1	0	1	0	0		
38. Bow, no projection. . . . .	0	0	1	0	1	1		
39. Bow, horizontal. . . . .	1	1	0	1	0	0		
40. Bow, decorated. . . . .	1	1	0	1	1	0		
41. Bow, upturned knob. . . . .	0	0	1	0	0	0		
42. Stern, upward curving. . . . .	1	1	0	1	0	0		
43. Stern, upturned knob. . . . .	0	0	1	0	0	0		
44. Stern, no projection. . . . .	0	0	0	0	1	1		
45. Seams covered. . . . .	1	1	0	0	0	0		
46. Seams decorated. . . . .	1	1	0	0	0	0		
47. Outside rubbed down. . . . .	0	0	0	1	1	1		
48. Lashings invisible outside. . . . .	0	0	0	1	1	1		
49. Lashings visible inside and out. . . . .	1	1	1	0	0	0		
50. Decoration elaborate. . . . .	1	1	0	0	0	0		
51. Decoration slight. . . . .	0	0	0	1	1	0		
52. Canoes painted. . . . .	0	1	0	0	0	0		
53. Double canoe rare. . . . .	0	1	0	0	0	0		
54. Double canoe equal size. . . . .	1	1	1	1	0	0		
55. Double canoe unequal size. . . . .	0	0	0	0	1	1		
56. Double canoe permanent. . . . .	0	x	x	0	1	1		
57. Double canoe temporary. . . . .	1	x	x	1	0	0		
58. Sail, inverted triangle. . . . .	1	1	1	1	1	0		
59. Sail, lateen. . . . .	0	0	0	0	1	1		
60. Tanged adz present. . . . .	1	1	1	1	1	0		
61. Tanged adz common. . . . .	1	1	1	1	0	0		
62. Tanged adz rare. . . . .	0	0	0	0	1	0		
63. Triangular cross-sections. . . . .	1	1	0	1	1	0		

	M.	N.Z.	H.	Soc.I.	S.	T.
64. Rectangular cross-sections.....	1	1	1	0	0	0
65. Rough finish.....	1	1	1	1	1	0
66. Rough finish rare.....	0	1	0	1	0	0
67. Complete grinding.....	1	1	1	1	0	1
68. Complete grinding rare.....	1	0	1	0	0	0
69. Tangless adz secondary.....	1	1	0	0	0	0
70. Tangless adz rare.....	0	0	1	1	0	0
71. Tangless adz normal.....	0	0	0	0	1	1
72. Axes.....	0	1	0	0	0	0
73. Melanesian forms.....	0	1	0	0	0	1
74. Pounders.....	1	1	1	1	0	0
75. Pounders, flat tops.....	1	0	1	0	0	0
76. Pounders, phallic tops.....	1	0	0	0	0	0
77. Pounders, round tops.....	0	1	1	0	0	0
78. Pounders, cross-grip.....	0	0	0	1	0	0
79. Pounders, flaring base.....	1	0	1	1	0	0
80. Pounders, carved.....	1	1	0	0	0	0
81. Pestles.....	0	1	1	1	0	0
82. Sinkers.....	1	1	0	0	0	0
83. Small figures present.....	1	1	1	1	0	0
84. Small figures fish, common.....	1	0	0	0	0	0
85. Small figures fish, rare.....	0	0	1	1	0	0
86. Small figures human, common.....	1	1	0	0	0	0
87. Small figures, human, rare.....	0	0	1	1	0	0
88. Large figures common.....	1	0	0	0	0	0
89. Large figures rare.....	0	1	1	0	0	0
90. Large figures present.....	1	1	1	0	0	0
91. Box oval.....	1	1	0	x	0	x
92. Box bird form.....	1	0	0	x	0	x
93. Box round.....	0	0	1	x	1	x
94. Legged bowls rare.....	0	0	1	0	0	0
95. Legged bowls common.....	0	0	0	1	1	1
96. Legged bowls present.....	0	0	1	1	1	1
97. Paddle club.....	1	x	0	1	0	0
98. Uu.....	1	x	0	0	0	0
99. Stone club.....	0	x	1	0	0	0
100. Sickle club.....	0	x	0	1	0	0
101. Throwing club.....	0	x	1	0	1	1
102. Bludgeon.....	0	x	1	1	0	0
103. Fijian types blubs.....	0	x	0	0	1	1
104. Shark tooth knives.....	1	1	1	0	0	0
105. Shark tooth weapons.....	0	0	0	1	0	0
106. Shark tooth sickle.....	0	0	0	1	0	0
107. Bow, toy.....	1	0	1	1	1	0
108. Bow, fishing or rat hunting.....	1	0	1	0	1	0
109. Bow, weapon, important.....	0	0	0	0	0	1
110. Bow, weapon traditional.....	0	1	0	0	0	0

	M.	N.Z.	H.	Soc. I.	S.	T.
111. Sling important.....	1	0	1	1	1	0
112. Sling rare.....	0	1	0	0	0	1
113. Sling as toy.....	0	1	0	0	0	0
114. Sling-stone, double conical.....	1	0	1	0	x	x
115. Sling-stone, not shaped.....	0	1	0	1	x	x
116. Throwing cord.....	1	1	0	0	0	0
117. Throwing cord with stick.....	0	1	0	0	0	0
118. Spear with detachable head.....	1	1	0	0	0	0
119. Chiefs stave.....	1	1	0	0	0	0
120. Chiefs stave with hair.....	1	0	0	0	0	0
121. Chiefs stave top carved.....	0	1	0	0	0	0
122. Armor, mats.....	0	1	1	0	0	0
123. Armor, wicker helmets.....	0	0	1	0	0	1
124. Armor, breast plates of fiber.....	0	0	0	1	0	0
125. Armor, like Gilbert Is.....	0	0	0	0	1	0
126. Trumpet, cassis shell.....	1	0	1	0	0	0
127. Trumpet, Triton shell.....	1	1	0	1	1	1
128. Trumpet, separate mouthpiece.....	1	1	0	1	0	0
129. Wooden trumpet.....	1	1	0	0	0	0
120. Drum, cylindrical.....	1	0	1	1	0	0
131. Drum, canoe-shaped and gongs.....	0	1	0	0	0	0
132. Drum, horizontal.....	0	0	0	0	1	1
133. Flute important.....	1	1	0	0	0	0
134. Flute rare.....	0	0	0	0	1	1
135. Flute tunable.....	1	0	0	0	0	0
136. Presence of mouth flute.....	1	1	0	0	1	1
137. Nose flute important.....	1	0	1	1	0	0
138. Nose flute present.....	1	1	1	1	0	1
139. Musical bow present.....	1	0	1	x	0	0
140. Musical bow with strings.....	0	0	1	x	0	0
141. Jew's harp.....	1	0	1	x	0	0
142. Slotted bamboo.....	0	0	0	1	x	0
143. Bamboo lengths important.....	0	0	0	0	1	0
144. Bamboo lengths present.....	0	0	1	0	1	1
145. Stilts important.....	1	0	0	0	0	0
146. Stilts present.....	1	1	1	1	0	0
147. Surf boards present.....	1	1	1	1	1	0
148. Surf boards important.....	0	0	1	0	0	0
149. Darts important.....	1	1	0	0	0	0
150. Bowling.....	0	0	1	0	0	0
151. Coasting, children.....	0	1	0	0	0	0
152. Coasting, important.....	0	0	1	0	0	0
153. Coasting, present.....	0	1	1	0	0	0
154. Kites, important.....	0	1	0	0	0	0
155. Kites, present.....	1	1	1	1	0	0
156. Draft game.....	0	1	1	0	0	0
157. Men, tattooed, waist to knee only.....	0	0	0	0	1	1

	M.	N.Z.	H.	Soc.I.	S.	T.
158. Men, tattooed, general. ....	1	0	1	1	0	0
159. Men, tattooed, face. ....	0	1	0	0	0	0
160. Women, tatoood, mouth. ....	1	1	0	0	0	0
161. Women, tatoood, limbs. ....	1	0	0	1	1	1
162. Women, tattooed, girdle. ....	0	0	0	1	0	0
163. Tapa making stone anvil. ....	1	x	0	0	0	0
164. Tapa making hollow wooden anvil. ....	1	x	1	1	0	0
165. Tapa making solid wooden anvil. ....	1	x	0	0	1	1
166. Tapa making square beater. ....	1	x	1	1	1	1
167. Tapa making round beater. ....	1	x	1	0	0	0
168. Tapa making grooved beater. ....	1	x	1	1	1	1
169. Tapa making beater with water marks. ....	0	x	1	1	0	0
170. Tapa decoration, dyed yellow. ....	1	x	0	0	0	0
171. Tapa decoration, free-hand painting. ....	0	x	0	1	1	1
172. Tapa decoration, block painting. ....	0	x	0	0	1	1
173. Tapa decoration stamped design. ....	0	x	1	1	0	0
174. Feather cloaks. ....	0	1	1	0	0	x
175. Feathers pasted in base. ....	1	0	0	0	0	x
176. Feathers in woven fabric. ....	0	1	0	0	0	x
177. Feathers in netted fabric. ....	0	0	1	1	0	x
178. Feathers woven in edges of fine mats. ....	0	0	0	0	1	x
179. Necklaces of braided hair. ....	1	0	1	0	0	0
180. Turban of braided hair. ....	0	0	0	1	0	0
181. Fans, restricted use. ....	1	x	1	0	0	0
182. Fans decorated and elaborate. ....	1	x	1	1	1	1
183. Fly flap, restricted use. ....	0	0	1	0	1	0
184. Fly flap, present. ....	0	0	1	0	1	1
185. Fly flap, elaborately decorated. ....	0	0	1	1	0	0
186. Carving highly developed. ....	1	1	0	0	0	0
187. Carving poorly developed. ....	0	0	1	0	1	1
188. Carving moderatley developed. ....	0	0	0	1	0	0
189. Carving on utensils. ....	1	1	1	1	0	0
190. Carving on tools. ....	1	1	0	0	0	0
191. Carving on houses. ....	1	1	0	0	0	0
192. Carving on canoes. ....	1	1	0	1	1	0
193. Inlay. ....	0	1	1	1	0	1
194. Designs lime filled. ....	0	0	0	0	1	0
195. Painting of rafters, canoes and images. ....	0	1	0	0	0	0
196. Painting of tapa only. ....	0	0	1	1	1	1
197. Painting present. ....	0	1	1	1	1	1
198. Designs curvilinear. ....	1	1	0	0	0	0
199. Designs spiral. ....	1	1	0	0	1	0
200. Designs conventional. ....	1	1	0	0	0	0
201. Designs human forms. ....	0	0	0	1	1	0
202. Designs animal forms. ....	1	1	0	1	1	0
203. Treatment of design, surface zoned. ....	1	1	0	1	1	1
204. Treatment of design, surface striped. ....	0	0	1	0	0	0

	M.	N.Z.	H.	Soc.I.	S.	T.
205. Treatment of design, surface treated as whole	0	1	1	0	0	0
206. Treatment of design, superposition.....	1	1	0	0	0	0
207. Human figures conventionalized.....	1	1	1	1	0	x
208. Human figures naturalistic.....	0	1	1	0	0	x
209. Human figures present.....	1	1	1	1	0	1
210. Leg half flexed.....	1	1	1	1	0	x
211. Arms at sides.....	1	1	1	1	0	x
212. Hands on abdomen.....	1	1	0	1	0	x
213. Hands on hips.....	0	0	1	0	0	x
214. Five fingers equal length.....	1	0	1	1	1	x
215. Three fingers equal length.....	0	1	0	0	0	x
216. Outer fingers connected by groove.....	1	0	0	0	0	x
217. Body formed by series of planes.....	1	0	1	1	0	x
218. Body formed by rounded contours.....	0	1	1	1	0	x
219. Exaggerated mouth.....	1	1	1	1	0	x
220. Oval mouth.....	1	0	1	1	0	x
221. Naturalistic mouth.....	0	0	0	1	0	x
222. Beaked mouth.....	0	1	1	0	0	x
223. Prominent tongue.....	1	1	1	1	0	x
224. Nostril exaggerated.....	1	1	1	1	0	x
225. Flat nose.....	1	0	0	0	0	x
226. Bridge of nose not shown.....	0	1	1	0	0	x
227. Naturalistic nose.....	0	0	0	1	0	x
228. Oval eye.....	1	1	1	1	0	x
229. Eye with upward slant.....	1	1	1	0	0	x
230. Straight eyes.....	1	0	1	0	0	x
231. Eye with raised rim.....	1	0	0	1	0	x
232. Exaggerated brows.....	1	1	1	1	0	x
233. High brows.....	1	1	1	1	0	x
234. Arched brows.....	1	1	1	1	0	x
235. Straight brows.....	0	0	0	1	0	x
236. Straight brows slightly developed.....	1	0	1	1	0	0
237. Wall terrace and platform.....	1	0	1	1	1	1
238. Cut stone present.....	1	0	1	1	1	1
239. Cut stone highly developed.....	1	0	0	1	0	1
240. Cut stone rare.....	0	0	1	0	1	0
241. Rectangular slabs of cut stone.....	1	0	1	1	0	1
242. Mummification present.....	1	1	0	1	1	0
243. Mummification normal.....	1	0	0	1	0	0
244. Mummification rare.....	0	1	0	0	1	0
245. Evisceration.....	1	1	0	1	1	0
246. Temporary mummification by salt.....	0	0	1	0	0	0
247. Mummification in special house.....	1	1	0	1	1	0
248. Earth burial normal.....	0	0	0	0	1	1
249. Earth burial rare.....	1	1	1	1	0	0
250. Buried in flexed position.....	x	1	1	1	0	0
251. Buried in extended position.....	0	0	0	0	1	1

	M.	N.	Z.	H.	Soc.	I.	S.	T.
252. Body kept until disintegration. . . . .	1	1	1	1	1	1	0	
253. Body kept until disintegration rare. . . . .	0	0	1	0	1	0	0	
254. Body kept until disintegration normal. . . . .	1	1	0	1	0	0	0	
255. Bones put in sacred places. . . . .	1	1	1	1	x	0	0	
256. Skulls preserved. . . . .	1	1	0	1	1	0	0	
257. Vaults present. . . . .	1	0	1	0	0	0	1	
258. Cannibalism present. . . . .	1	1	0	0	1	1	1	
259. Cannibalism highly developed. . . . .	1	1	0	0	0	0	0	
260. Head-hunting present. . . . .	1	1	0	1	1	1	1	
261. Skulls decorated. . . . .	1	0	0	0	0	0	0	
262. Skulls preserved. . . . .	1	1	0	0	0	0	0	
263. Overlords. . . . .	0	0	1	1	0	0	0	
264. Loose tribal confederacies. . . . .	1	1	0	0	0	0	0	
265. Large political units. . . . .	0	0	1	1	1	1	1	
266. Chiefs of little power. . . . .	1	0	0	0	0	0	0	
267. Chiefs of little power rare. . . . .	1	0	0	0	0	0	0	
268. Ancestor worship. . . . .	1	1	1	1	0	0	0	
269. Worship of great gods. . . . .	0	1	1	1	0	0	0	
270. Worship of village animal gods. . . . .	0	0	0	0	1	0	0	
271. Priesthood organized. . . . .	1	0	1	1	0	0	0	
272. Ceremonial priests. . . . .	1	0	1	1	0	0	0	
273. Inspirational priests. . . . .	1	0	0	0	0	0	1	
274. Priest-chiefs. . . . .	0	1	0	0	1	0	0	
275. Human sacrifice present. . . . .	1	1	1	1	0	0	0	
276. Human sacrifice highly developed. . . . .	1	0	1	0	0	0	0	
277. Sacred houses with platforms. . . . .	1	0	0	1	1	1	1	
278. Sacred houses with enclosures. . . . .	0	1	1	1	0	0	0	
279. Sacred houses temporary. . . . .	0	1	0	0	0	0	0	
280. Sacred houses taboo. . . . .	0	0	1	1	0	0	0	
281. Organized instruction. . . . .	1	1	0	0	0	0	0	
282. Organized instruction for men and women. . . . .	1	0	0	0	0	0	0	

This table is compiled from Linton's table *without reference to any other data*—even such as might be gathered from the text of his book—and with minor exceptions (cited below) all of the data contained in his tabulation appear in Table I in the same order and classification. In order to treat the data statistically, we have made a separate item of each single trait, descriptive detail, or special characteristic. By this process of reduction to *simple* units, the ninety-three traits enumerated by Linton were expanded into two hundred eighty-two unit traits. Every island group was then scored for each unit trait in one of three ways, thus: presence of trait (score 1); absence of trait (score 0); no data on trait (score x).

An apparent objection to this process of splitting is that it **will** result in an unequal weighting of the material since certain of the original traits have not been subdivided, whereas certain other traits have been broken up into numerous separate units. Actually, whatever of weighting there may be is inherent within Linton's table and is not altered by our treatment, each of the thirteen main divisions breaking up, by our method, into roughly three times as many units as he makes of them. To wit:

Houses.....	10 traits, (Linton).....	33 (ours).
Canoes.....	2 traits, (Linton) . . . .	26 (ours).
Stone artifacts . . . . .	11 traits, (Linton)... . . .	31 (ours).
Containers... . . . .	2 traits, (Linton)... . . . .	6 (ours).
Weapons.... . . . .	9 traits, (Linton).... . . .	29 (ours).
Musical instruments... . .	9 traits, (Linton)..... . .	19 (ours).
Toys.....	7 traits, (Linton)..... . .	12 (ours).
Dress and ornament... . .	7 traits, (Linton). . . . .	28 (ours).
Art.....	6 traits, (Linton). . . . .	24 (ours).
Human figure. .... .	8 traits, (Linton)... . . . .	26 (ours).
Stone construction... . .	2 traits, (Linton) .. . . .	6 (ours).
Mortuary practices.. . . .	5 traits, (Linton). . . . .	16 (ours).
Miscellaneous..... . . .	9 traits, (Linton)... . . . .	25 (ours).

At this point it may be advisable to point out again that our method is primarily an objective process for showing *special* relationships. No one doubts that the island groups considered here belong to that general type of culture called Polynesian. What our method does is to show the little mountain peaks of agreement and disagreement rising above the level plain of general Polynesian culture; in other words, it shows the special relationships within the area.

This being true, it was, therefore, necessary to *eliminate all common elements*, that is, all traits either present or absent in all six of the island groups were disregarded. Throughout Table I we have made the presence of a trait a first unit; then, whenever the data contained the requisite information, we have made further units on the basis, first, of varying degrees of development, importance, (as given by Linton) and frequency; second, of special characteristics of style, type of construction, etc.

It is apparent that data such as these, the intention of which is descriptive, do not lend themselves to numerical treatment with-



out certain judgments being passed in the course of their reduction to statistically comparable units. In order that the reader may know just what these judgments are, we append below a summary of our interpretations.

Such entries in Linton's table as "not reported," "not found," "found archeologically," were scored as 0 (absent) in Table I.

Under Houses. 1) Platform—Samoa "limited to temples and chief's houses" we interpreted as rare. 2) Houses on posts—Tonga, "occurrence of storehouses on posts uncertain" we scored as x (no data) in Table I.

Under Canoes. 1) Decoration—Society Islands, "small figures and other carving on bow and stern" we interpreted as "slight decoration."

Under Stone Artifacts. 1) Finish—Samoa, "very crude" was interpreted as "rough."

Under Containers. 1) Boxes—Society, "form unknown" was scored an x (no data).

Under Weapons. 1) Clubs—New Zealand, "characteristic local forms" was scored an x since the information is not sufficient for either a positive or a negative comparison. 2) Bow—Society, "used in chief's game" was interpreted as "toy" in Table I.

Under Musical Instruments. 1) Mouth-flute—Tonga, "rare or absent" was scored 1 (present).

Under Dress and Ornament. 1) Fans—Marquesas and Hawaii, "used by chiefs" was interpreted as "restricted use" in Table I. 2) Fly-trap—Hawaii, "part of chief's insignia" and Samoa, "carried by speaker chiefs," were both interpreted as "restricted use."

Under Art. 1) Human Figures—Samoa, "not used (one doubtful example) was scored 0 (absent). Hence, all the items for Samoa under "Conventions of the Human Figure" were scored 0 for absence.

Under Stone Construction. 1) Rough Stone—New Zealand, "little or no construction in recent times" was scored 0 for absence.

The foregoing explanation shows briefly just how Linton's table was transposed into the form of our Table I. It is now necessary to show in considerable detail the various mathematical steps involved in the statistical interpretation of Table I.

In the first place, it is necessary to list all the possible pairs of combinations of the six groups. There are fifteen of these pairs, thus, "Marquesas-New Zealand," "Marquesas-Hawaii," "New Zealand-Hawaii," etc. A square compartment divided into four cells is then drawn for each of the fifteen pairs of island groups. The following example will illustrate this clearly. Let us take for our purpose the first pair of islands, "Marquesas-New Zealand."

		NEW ZEALAND	
		Present	Absent
MARQUESAS	Present	Present in both.	Present in Marquesas; Absent in New Zealand
	Absent	Present in New Zealand; Absent in Marquesas.	Absent in both.

Now, by consulting Table I, we simply count up the number of traits present or absent in the Marquesas and in New Zealand and enter these totals in the appropriate small cells of the large square as indicated above. Upon doing this, we find the following distribution of traits in our square:

NEW ZEALAND			
MARQUESAS	Present	Absent	Sums
	90 <i>74</i> (A)	55 <i>71</i> (B)	145 (A+B)
Absent	41 <i>57</i> (C)	70 <i>54</i> (D)	111 (C+D)
Sums	131 (A+C)	125 (B+D)	256 Total

The arabic figures indicate the actual totals for each cell.

The italic figures are explained in the second paragraph below.

It is now necessary to get the sum of these figures both vertically and horizontally. Thus, the sum of 90 and 41 is 131; of 55 and 70 the sum is 125. Now, adding horizontally, the sum of 90 and 55 is 145; that of 41 and 70 is 111. These sums added together either vertically or horizontally will give the same answer which is the total number of traits involved. Thus, the sum of 145 and 111 is 256 and the sum of 131 and 125 is also 256. There are 256 traits involved, then, in regard to the two groups constituting the Marquesas-New Zealand pair.

The next step is the calculation of the "chance" frequencies which are indicated in italics in the above square. This is done as follows: for convenience the cells are lettered A,B,C,D, and will

be referred to hereafter by these letters. To get the "chance" frequency for cell A the following formula is used:

$$\frac{(A+B) \times (A+C)}{T} = \text{the theoretical number of traits in cell A if chance were the only factor operative.}$$

T = total number of traits.

Substituting in this formula, we get:

$$\frac{145 \times 131}{256} = 74, \text{ the theoretical number of traits in cell A if chance were the only factor involved.}$$

Similarly, for the other cells the formulae are as follows:

$$\text{For cell B.} \quad \frac{(A+B) \times (C+D)}{T} = \text{the chance frequency.}$$

$$\text{For cell C.} \quad \frac{(C+D) \times (A+C)}{T} = \text{the chance frequency.}$$

$$\text{For cell D.} \quad \frac{(C+D) \times (B+D)}{T} = \text{the chance frequency.}$$

Substituting in the above formulae, we get the number of traits which would occur in the respective cells if pure chance were the only force operating in the distribution of the data. These chance figures are indicated in italics in the large square above: Marquesas-New Zealand.

Suppose, now, that we let *nss* equal the actual frequency of a cell and let *mss* equal the theoretical or chance frequency. Thus, for cell A in the above distribution *nss* will equal 90 and *mss* will equal 74.

If, now, we let the difference between *nss* and *mss* equal *dss*, we will get the difference between the actual frequency of a cell and its theoretical chance frequency. Thus, in cell A this difference, *dss*, equals the difference between 90 and 74 or +16, i.e., there are 16 more traits in cell A than there would be if chance were the only force operative in the data. Looking at cell B, we see that the actual frequency, *nss*, is 55, while the chance frequency, *mss*, is 71. The difference, *dss*, in this case is minus 16, i.e., the actual number of traits in cell B is 16 less than it would be if chance were the only thing involved in the distribution. Thus, *dss* will

be either plus or minus, depending on whether the actual frequency is greater or less than the theoretical chance frequency.

The following check is useful at this point as a means of testing the accuracy of the foregoing arithmetical operations. If the positive values for  $dss$  are added together, their sum should exactly equal the sum of the negative values for  $dss$ , and the total sum of all four  $dss$  values for any square will equal zero. If this sum of the positive and negative values is not zero, then a mistake has been made in the previous arithmetical calculations. Any such mistake must be rectified before continuing.

After getting  $dss$  for each cell, the next step is to calculate the "cell square contingency." This is done by substituting in the following formula:

$$\frac{(dss)^2}{mss} = \text{the cell square contingency.}$$

In the case of cell A, substituting in the formula we get

$$\frac{(16)^2}{74} = \frac{256}{74} = 3.46, \text{ the contingency square for cell A.}$$

As the  $dss$  values are all squared in this process, the minus signs drop out and the values for the cell square contingencies are all positive.

The cell square contingencies are calculated in this way for all four cells and then added together. This sum is  $X^2$ . In the case used for illustration the sum of the cell square contingencies for all four cells is 16.29. In other words, the  $X^2$  for Marquesas-New Zealand is 16.29

The values for  $X^2$  were calculated in the way which has been described for each of the fifteen pairs of islands. These values for  $X^2$  are given in Table II.

It now becomes necessary to convert the values found for  $X^2$  into terms of probability expressed by  $P$ . This is best done by using Table XII in Karl Pearson's *Tables for Statisticians and Biometricians*, Biometric Laboratory, University College, London. Cambridge University Press, 1914.

Here various values for  $X^2$  are given opposite the corresponding value for  $P$ . As we have used four cells in each of our fifteen squares, we use the  $P$  given in the column "n equal 4" in Pearson's Table

XII. A moment's glance at Pearson's table will make this clear. The corresponding value of  $P$  is thus found for each  $X^2$  interpolating in the usual way if the exact value for  $X^2$  is not given in the table.

For example, in the case used for illustration above, we find by consulting Pearson's Table XII and interpolating, that the  $P$  for a  $X^2$  of 16.29 equals .001001. This is an expression of the probability of a similar distribution occurring by chance—in other words, there are only 1011 chances in a million, or one chance in one thousand, that the distribution of traits in the Marquesas and New Zealand is due to chance.

The values for  $P$  in each of our fifteen cases are given in Table II opposite their respective  $X^2$  values.

Now  $P$  is also an indirect expression of correlation, but possesses the disadvantage of not showing whether the correlation is positive or negative. To overcome this difficulty, Dr. Kroeber suggested the following addition to the contingency method.

Referring back to the large square containing the distribution of traits in Marquesas-New Zealand, we see that cell A contains traits present in both islands while cell D contains traits absent in both. The traits in these cells evidently represent agreements between the two islands. On the other hand, cell B contains traits present in the Marquesas but absent in New Zealand, and cell C contains traits present in New Zealand but absent in the Marquesas. These latter two cells obviously represent disagreements between the two islands. Now, if we find the sum of the agreements and the sum of the disagreements, the difference between the two sums will represent the *excess* number of agreements or disagreements as the case may be. Thus, for any case

- (1)  $(A+D) - (B+C)$  = the excess of agreements over disagreements *where  $A+D$  is larger than  $B+C$ .*
- (2)  $(B+C) - (A+D)$  = the excess of disagreements *where  $B+C$  is larger than  $A+D$ .*

Substituting in No. 1 for our example "Marquesas-New Zealand," we get

$(90+70) - (55+41) = 64$  excess agreements over disagreements.

Such a large excess of agreements superficially indicates a high degree of special relationship between the two islands. For confirmation of the figure, however, it is very important to consult the P for this pair of islands. Looking at Table II, we see that the P for Marquesas-New Zealand is .001011. In other words, pure chance has had very little to do with the distribution of traits found in these two islands and the degree of special relationship indicated by the high excess figure of 64 is valid.

The excess agreements or disagreements were calculated as explained above for each of the fifteen pairs of islands, and are listed in Table II. Excess agreements are indicated by positive signs while excess disagreements are marked with negative signs.

### *Explanation of Table II*

The first column in the table shows the various values for the cells A,B,C, and D for each of the fifteen cases. These figures are derived from Table I as has been explained above. The second column in Table II contains the values for excess agreements or disagreements. Column three contains the values for  $X^2$  from which the corresponding values for P in the fourth column are derived. The table is arranged to read from the greatest number of excess agreements down to the greatest excess of disagreements.

Concluding the explanation of the method, we may say that the P gives the reliability of the figure expressing the excess of agreements or disagreements. The lower the P, the less potent is the factor of chance and the greater the reliability of the *excess* figure. Just where the line shall be drawn to show this validity is a matter dependent on the set of data being used. For example, if, in a certain set of data, most of the values for P are high, say around .60 or .70, but one P has a value of .30, then this low P is very significant. On the other hand, another set of data may show values for P running around .002 or .06. In this latter case of P of .30 would show a relatively great factor of chance.

For example, in the set of data dealt with here, inspection reveals that a P of about .30 is the point of division. Then, a P below .30 indicates that the excess figure is valid, this validity

TABLE II

Islands	A	B	C	D	Excess agree- ments or dis- agreements	$\chi^2$	P
Samoa- Tonga	46	32	13	147	+148	75.00	.000000
Hawaii- Society	78	54	48	93	+69	17.04	.000697
Marquesas- New Zealand	90	55	41	70	+64	16.29	.001011
Society- Tonga	32	56	26	108	+58	7.88	.049119
Marquesas- Society	81	73	44	76	+40	7.23	.065944
Society- Samoa	43	81	35	110	+37	3.54	.321339
Marquesas- Hawaii	79	88	55	67	+ 3	0.22	.956276
Hawaii- Tonga	25	86	33	95	+ 1	0.35	.930439
New Zealand- Society	60	73	56	64	- 5	0.04	.992051
New Zealand- Hawaii	59	75	64	60	-20	1.54	.677677
Hawaii- Samoa	32	102	48	94	-24	3.43	.335656
Marquesas- Tonga	25	108	33	73	-43	4.50	.216631
New Zealand- Samoa	24	98	47	75	-46	9.60	.022856
Marquesas- Samoa	35	121	45	80	-51	5.72	.128463
New Zealand- Tonga	14	100	37	68	-55	17.31	.000625

increasing as the P decreases toward zero. Likewise, a P higher than .30 shows that the corresponding excess figure is not so reli-

able, this unreliability increasing as the  $P$  increases toward unity. However, we can draw the line at .30 only after inspection of the other values for  $P$ . In another set of data, a  $P$  of .30 might be relatively low or high, and the line of division would then be drawn elsewhere. We cannot arbitrarily say that all  $P$ 's below .30 show reliability and all  $P$ 's above .30 show unreliability. The matter is purely relative, and the selection of any given value of  $P$  below which all figures are reliable and above which all figures are untrustworthy depends wholly on the relative standing of the  $P$ 's to each other in any set of data.

Two examples may clarify the matter. Referring to Table II, we see that Society-Samoa have an excess agreement of 37 traits. In itself, this excess would seem to indicate a considerable degree of special relationship between the two islands. The  $P$  for this group is .321339. That is, there are 32 chances out of 100 that this excess figure is due to chance. This means that the odds here are 2 to 1 against chance. Such odds, of course, are considerable; but when we look over the list of all the  $P$ 's in Table II we see that there are many cases with much greater odds against chance. *Relatively*, then, a  $P$  of .32 is pretty close to the border line of validity for this particular set of data. We may conclude, then, that although Society and Samoa have an excess of 37 agreements, this excess is not nearly so reliable as it might be although it is still sufficiently reliable to be quite significant.

Again, we see that New Zealand and Hawaii have an excess of 20 disagreements which would seem to indicate a rather large degree of dissimilarity between the two islands. However, the  $P$  for these two groups is .677677, which means that the odds against chance being the sole factor involved are only 2 to 3. In other words, in the set of data dealt with here, a  $P$  of .67 indicates a considerable preponderance of chance and shows that the dissimilarity indicated by the 20 disagreements is largely superficial and really due to nothing but chance. On the other hand, Tonga-New Zealand show an excess of 55 disagreements with a  $P$  of .00625, which indicates that chance has been practically inoperative here and that the observed degree of dissimilarity is both



high and valid. A few moments' study of Table II will serve to clear up any points remaining obscure.

From an examination of the figures in the preceding tables, various conclusions regarding the relations of the islands within the group to each other may be adduced. It is well to reiterate here, perhaps, that our interest is in the presentation of a method, and the ethnological conclusions which we give must be regarded in the light of a demonstration of the workability of our method. In no case do our conclusions go beyond the tabulated data and their numerical demonstration. It is our belief that our figures will prove highly suggestive to specialists in Polynesian ethnology, both as to the positive tendencies they seem to indicate for further investigation along the lines here started, and as to inadequacies and other weaknesses of the present data.

A study of Table II reveals the outstanding fact that the three highest positive excess figures with very low P's are for three pairs of islands none of which appears more than once. That is to say, the six islands fall into three groups which are primary. These are the three culture areas which are alluded to by Linton—Samoa-Tonga, Hawaii-Society, and Marquesas-New Zealand. A glance at a map of Polynesia will show the striking fact that these affiliations run counter to geography.

Again referring to Table II, we see that the last four groups have the greatest excess of disagreements with low P's which indicate that the excess figures are valid. All four of these are comparisons of the group Samoa-Tonga with Marquesas-New Zealand and exhaust all the possible relations between them. Thus, Samoa-Tonga and Marquesas-New Zealand have markedly greater divergence from each other than either has from the third culture area, Society-Hawaii.

Next to the three primary groups, we see that highest excess agreements (lines 4, 5, and 6 in Table II) all include Society. These figures all have reasonably low values for P which insures their reliability. This means that Society not only belongs to the primary culture area of Society-Hawaii but also has definite secondary affiliations with the two other groups, i.e., with Samoa-Tonga and with Marquesas. This makes Society the most

generally connected of any of the six islands considered. But whether Society was an active source of culture which was carried out into Polynesia or simply acted as a passive focus which received a certain amount of culture from everywhere else, the figures do not show.

The remaining cases (lines 7, 8, 9, 10, and 11 in Table II) have the lowest excess figures with very high values for P. Thus, any apparent agreements or disagreements here are largely due to chance and there is no relationship except a generic Polynesian one. In these cases, there are four comparisons of Hawaii with members of the other areas. As the P's show a high chance factor here we must conclude that Hawaii has no specific relations with any other member of the group except Society with which it forms one of the three primary areas referred to above. Hawaiian culture, then, consists of two things, generic Polynesian elements and elements from Society.

On the other hand, Society has secondary affiliations with every member of the group except New Zealand. Therefore, New Zealand was not reached by specific Society influences while apparently Hawaii was reached *only* by them.

Regarding Samoa-Tonga, the relations of each to Marquesas and New Zealand are about equal both as the excess figures and the reliability of these figures. But in relation to Society and Hawaii, Tonga is much nearer than Samoa. We may then conclude that Tonga probably had somewhat more of a connection with Society, and through this with Hawaii, than did Samoa.

The high degree of special relationship between Samoa and Tonga is due to absences. That is, of the 282 traits considered here, so many were absent in both Samoa and Tonga that the relationship between them is overemphasized by the figures. Their relationship consists in a common *lack* of many traits found in the other groups. However, this does not affect our interpretation of the results because it shows even more clearly than in the other cases that Samoa-Tonga is a separate entity and makes it stand out more definitely than before as a primary area.

Summing up, we may say that the simplest interpretation of all these relationships is that there were two varieties of Polynesian

culture which differed considerably. One of these is represented in Samoa and Tonga while the other is shown by Marquesas, New Zealand, and perhaps elsewhere. This latter type must be old; the Samoa-Tongan culture may be old or new. A third culture form, which is apparently new, overlaid the ancient Marquesan form but failed to reach New Zealand. It flooded Hawaii and either centered or culminated in Society. This culture also had some degree of relationship with the eastern type, primarily through Tonga.

Whether this Society form of culture was carried to Samoa and Tonga, there to be accepted as an overlay on the old native culture, or whether specific Samoa-Tongan elements were accepted in Society is not clearly indicated by our figures. This, however, is due to the fact that the data used were collected primarily from the standpoint of Marquesan culture.

The main outlines of our interpretation are shown graphically in the diagram.

The above results show, we believe, the practicability of our method and also its objectivity. It will be interesting to see just how it works out when applied generally in the field of ethnology.

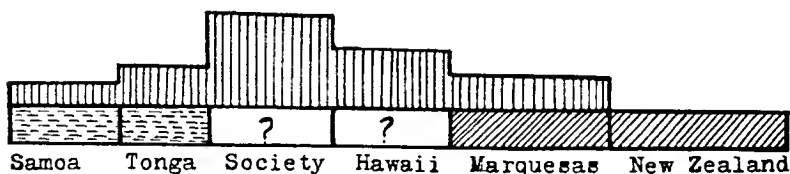
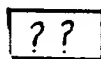


FIG. 1.

KEY TO FIG. 1.



Old New Zealand-Marquesan culture.



Old Society-Hawaii culture?



Samoa-Tongan culture.



Overlaid culture, origin uncertain, but most strongly marked in Society.

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## AN ANALYSIS OF THE FIRST SALMON CEREMONY<sup>1</sup>

By ERNA GUNTHER

A CEREMONY marking the advent of the first salmon run of the season is general among North Pacific Coast Indians.

Many of the ceremonial features are similar throughout the area, yet the question remains in how far these common elements are dependent on the salmon run and how far they represent a diffused ceremonial complex.

The majority of tribes on the coast make salmon one of their principal foods. This is true of tribes as far inland as the Rockies, that is, wherever they live on streams which have connection with the ocean. Several varieties of salmon (*Oncorhynchus*) are abundant from Monterey, California to Bering Sea. When these fish run up the rivers in enormous numbers to spawn, the great fishing season commences for the Indian. In most localities there are no salmon in the streams during some seasons of the year, or if any are to be found the quality is so poor that the Indians do not use them. Hence the coming of the first salmon is a real event, for it means not only a change from the diet of dried meats and fish, but in many instances saves the people from imminent starvation.

I will give a description of four typical first salmon ceremonies and then deal with the following questions: first, is the distribution of this ceremony co-extensive with the use of salmon? Second, what is the relation of this ceremony to the ceremonial complex of the tribe, especially to other first-fruits ceremonies? Finally, what is the attitude toward the salmon as shown by this ceremony and by myths and taboos?

The northernmost people practising the ceremony are the Tsimshian. When the first salmon of the year is caught, four old shamans are called to the fisherman's platform, bringing a new cedar bark mat, bird's down and red ochre. They spread out the mat and a shaman puts on the fisherman's clothing. He holds a rattle in his right hand and an eagle's tail in the left. The shamans

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<sup>1</sup> Read before the British Association for the Advancement of Science, Toronto, August, 1924.

put the salmon on the mat and taking it up at the four corners, carry it to the chief's house, the shaman dressed in the fisherman's clothing leading the way and shaking his rattle. All young people who are unclean are ordered to leave. The old people enter the house in front of the procession. After the procession has passed in, all the shamans of the village dressed in ceremonial regalia enter. The salmon is placed on a cedar board and the shamans march around it four times. Then the shaman wearing the fisherman's clothes calls two old shamans to cut the fish. The head is cut off first, then the tail is cut, never broken, with a mussel-shell knife. A stone or metal knife would cause thunderstorm or disaster. While cutting the fish they call it honorary names. They cut along the ventral side and remove the stomach.<sup>2</sup>

The second area is that of the Kwakiutl-speaking peoples. The Kwakiutl are justly famous for their complete ritualization of life. In regard to the salmon ceremony they have lived up to their tradition, for where most tribes have one ritual they have at least three. The first is really an individual ritual. Every wise salmon fisher has prayers which belong to him personally. These prayers are offered when the first catch of salmon is made with the hook. When some are caught, the fisherman goes to the river house and prays to the fish to be good while he is drying them. He prays:

Swimmer, I thank you because I am still alive at this season when you come back to our good place, for the reason why you come is that we may play together with my fishing tackle, Swimmer. Now, go home and tell your friends that you had good luck on account of your coming here, and that they shall come with their wealth bringer, that I may get some of your wealth, Swimmer; also take away my sickness, friend, supernatural one, Swimmer.<sup>3</sup>

The other ceremonies are the collective rituals used elsewhere. As soon as the first four silver salmon of the run are caught the wife of the fisherman meets him on the beach. She prays to the silver salmon, picks them up and lays them on the beach before their house. She cuts them with a fish knife so that the head and

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<sup>2</sup> Franz Boas. *Tsimshian Mythology*, 31st Report, Bureau of American Ethnology, 1916, p. 450.

<sup>3</sup> Franz Boas. *Ethnology of the Kwakiutl*, 35th Report, Bureau of American Ethnology, 1921, p. 1318-1319.

tail are left on the backbone. She sets up roasting tongs on the beach and fastens the salmon so that the eyes project on the tongs. Later the tongs are carried into the house and placed by the fire. As soon as the eyes blacken, the fisherman calls together his family group to eat them for if roasted eyes are kept in the house overnight, the silver salmon will disappear from the sea. The guests who are called sit behind the fire. The hostess spreads new food mats and places the tongs with the eyes before the guest.. She gives them water to drink before eating. The guest of the highest rank prays to the food before it is eaten. The fisherman's wife picks up all bones and skin, wraps them in a food mat and throws it in the sea. The guests rub their hands, but do not wash them, and wipe them on shredded cedar bark as they usually would do.

At the ceremony for the first dog salmon the wife of the fisherman again officiates. She prays to the salmon:

O Supernatural Ones, O Swimmers, I thank you that you are willing to come to us. Don't let your coming be bad, for you come to be food for us. Therefore I beg you to protect me and the one who takes mercy on me, that we may not die without cause, Swimmers.

The woman replies "Yes" to herself. She goes up the bank and there cuts the fish. The intestines of a speared salmon are broken off at the anal fin, while those of a salmon caught on the hook are cut. If these rules are not followed the fisherman's line will break. The entrails are gathered in a basket and poured into the sea at the mouth of a river for it is believed that various kinds of salmon at once come to life when the intestines are put into the water.<sup>4</sup>

Among the Lower Lillooet the ceremony is preceded by watching and praying at the fishing-places, a feature that also occurs in northern California. When the salmon have passed up the river the chief under whose supervision the ceremony is performed sends a boy to pray at each fishing-place for a heavy run. Just before the catch the tops of the weir poles are decorated with owl, hawk, red-wing, flicker or eagle feathers. At fishing places without weirs, poles are decorated with feathers and set up. Then the chief orders a man to go out in a canoe and make the first catch. Before taking

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<sup>4</sup> Boas, *Ibid.*, p. 609-611.

the salmon from the water it is rolled up in a mat, for if it saw the ground, no more fish would come. They wait until it is dead on the shore; then rolled it in leaves and branches of a bush with red berries. They carry it to the place where a new kettle stands ready to receive it. New stones for boiling are used and are first dipped into a new basket of water to clean them. The salmon is boiled whole, then lifted out with sticks and laid on a new mat in order to pull off the fins and take out the backbone. It is boiled again until it is reduced to a mush. Then it is divided with a new spoon and put into two new dishes. Now the people are all assembled to eat the fish. Unmarried adult women, menstruating women, orphans, widows or widowers are not allowed to eat the first salmon. All others must eat some of it, the men from one dish, the women from the other.

If the first salmon were cut with a knife, there would be no run. The humpback is regarded as the chief of the salmon and is believed to lead all other salmon away from the sea, so if he is prayed to, the salmon will come quickly. He is frequently treated with as much reverence as the first salmon caught earlier in the season.<sup>5</sup>

Hill-Tout records another Lillooet salmon ceremony, specifically for the sockeye which according to him was regarded as the chief of the salmon. It is conducted in much the same way but adds an elaborate introduction of the salmon to the elders of the village by laying the right fin of the salmon on a series of rods, each named for one of the elders. In this way the salmon is welcomed into the tribe. After a feast of salmon cooked to a mush there is a ceremonial dance. After the feast, the bones are thrown into the water so they can revive.<sup>6</sup>

These ceremonies differ radically from those to the south, for in the Puget Sound region and beyond the ceremonial eating of the salmon is practically the whole ceremony. The Snohomish at the mouth of the Snohomish River on Puget Sound allowed

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<sup>5</sup> James Teit. *The Lillooet, Memoirs, American Museum of Natural History*, vol. iv, part 5, 1906, p. 280-281.

<sup>6</sup> Charles Hill-Tout. *Report on the Ethnology of the StlatlumH of British Columbia*, Journal, Royal Anthropological Institute, vol. 35, 1905, p. 140.

nobody to step over the first salmon. The man who caught the first fish invited all his friends to a feast at which everyone except the host ate some of the fish.<sup>7</sup> From this point southward the ceremony always centers around the eating of the salmon. The ritual is generally very simple. Sometimes the mode of cutting the fish and the persons who are to partake of it are specified. The southernmost ceremony occurs among the Northern Maidu.<sup>8</sup>

The first question is whether all Pacific Coast people who use salmon, perform this ceremony for the first catch of the year. The northernmost people who have the ceremony are the Tsimshian, whose neighbors the Bella Coola share their type of ritual, whereas the salmon runs as far north as the Yukon where the dog salmon goes up the river in July.<sup>9</sup> There are no accounts of Tlingit or Haida ceremonies although both these people use the fish, hence it may be assumed that they lack the ceremony. The Tahltan have five varieties of salmon which begin running in June but here again no ceremony is noted.<sup>10</sup> Further inland, the Carrier and Chilcotin are quite dependent on salmon for food but no ritual has been described.<sup>11</sup> Among the interior peoples we find the Thompson, Shuswap<sup>12</sup> and Upper Lillooet,<sup>13</sup> who use salmon extensively, have no ceremony. The Shuswap and Thompson say that the salmon is a "hard fish" and does not have to be treated carefully. They claim that it has no real "mystery." The Cowichans of the Delta,<sup>14</sup> the Sts'Êelis<sup>15</sup> and other tribes along the

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<sup>7</sup> Hermann Haeberlin and Erna Gunther. *Ethnographische Notizen über die Indianerstämme des Puget-Sundes*, *Zeitschrift für Ethnologie*, 1924, p. 17.

<sup>8</sup> Roland B. Dixon. *The Northern Maidu*, *Bulletin, American Museum of Natural History*, vol. 17, 1905, p. 198.

<sup>9</sup> E. W. Nelson. *Eskimo about Bering Straits*, 18th Report, Bureau of American Ethnology, 1899, p. 183.

<sup>10</sup> George T. Emmons. *The Tahltan Indians*, University of Pennsylvania Anthropological Publications, vol. iv, part 1, 1911, p. 85.

<sup>11</sup> A. G. Morice. *Western Dènès*, *Proceedings, Canadian Institute*, 3rd Series, vol. vii, 1899, p. 128-129.

<sup>12</sup> James Teit. *The Shuswap*, *Memoirs, American Museum of Natural History*, vol. iv, part 7, 1909, p. 602.

<sup>13</sup> James Teit. *The Lillooet*, p. 280.

<sup>14</sup> Franz Boas. *Indians of the Lower Fraser River*, *British Association for the Advancement of Science, Report*, 1894, p. 461.

<sup>15</sup> Charles Hill-Tout. *Ethnological Report on the Sts'Êelis and Sk'aulits Tribes*



Fraser River, share the elaborate first salmon ceremony of the Lower Lillooet. On Vancouver Island the Kwakiutl on the east coast and the Nootka on the west coast have much the same ceremony, but I could find no information concerning the Salish tribes of the island.

About Puget Sound the ceremony seems to be practised generally. For the Klallam I have conflicting data. An informant who was raised in the village where Dungeness, Washington, now stands, gives an account of a ceremony similar to that found elsewhere on the Sound, while another informant whose native village was about ten miles east of Dungeness tells me that salmon ran all year in the Dungeness River so that there was no ceremony to mark its coming in the spring.<sup>16</sup>

It is possible here that one village had the ceremony and the other did not. The Nisqually<sup>17</sup> and Puyallup,<sup>18</sup> who are closely related linguistically and culturally to the Snohomish, have similar simple ceremonies. All the Chinook tribes on the Columbia River from its mouth to the Dalles perform a salmon ceremony very similar to the Snohomish.<sup>19</sup> The Wishram, who live at the Dalles, suspend all fishing after the first spring salmon is caught until after the ceremony has been performed. The fisherman carries the fish to a shaman who cuts the fish lengthwise, taking out the head and backbone in one piece. The fish is baked in a depression in the ground, which is lined with choke-cherry leaves and covered with mats. Everyone is invited and gets some of the fish. They pray at the feast. The bones are not returned to the river.<sup>20</sup>

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of the Halkomelem Division of the Salish of British Columbia, *Journal, Royal Anthropological Institute*, vol. 34, 1904, p. 330.

<sup>16</sup> Field notes gathered under the auspices of the Department of Anthropology, University of Washington.

<sup>17</sup> George Gibbs. *Tribes of Western Washington and Northwestern Oregon*, *Contributions to North American Ethnology*, vol. 1, 1877, p. 196.

<sup>18</sup> Arthur C. Ballard. *Personal Communication*.

<sup>19</sup> James G. Swan. *The Northwest Coast, 1857*, p. 107-108; George Gibbs, *loc. cit.*, p. 196; Gabriel Franchère, *Narrative of a Voyage to the Northwest Coast of America*, New York, 1854, pp. 260-261.

<sup>20</sup> Leslie Spier. *Wishram Notes*, ms.

The Tillamook and Alsea honor the salmon by boiling the first catch with a simple ceremony.<sup>21</sup> The Kalapuya<sup>22</sup> however have no ceremony because the salmon cannot ascend the falls of the Willamette at the northern border of their territory. In northern California, the Tolowa, Karok, and Yurok<sup>23</sup> have a salmon dance which is said to be much like their deer dance. The Hupa<sup>24</sup> and Shasta have a ceremony which recalls that of the Lower Lillooet in that a person is sent out to watch for the first salmon. The Shasta allow this fish to pass, for this one was believed to lead the others upstream.<sup>25</sup> Salmon was used by the Achomawi and Atsugewi in quantity but there is no record of a ceremony.<sup>26</sup> The Northern Maidu of the foothills prohibit salmon fishing until a ceremony has been performed.<sup>27</sup> In his survey of California Kroeber makes the statement that wherever salmon abound in California there is a salmon ceremony.<sup>28</sup> Salmon are found as far south as Salinan territory, but at the southern boundary of this area they occur only in small numbers for there are few rivers to the coast.<sup>29</sup>

The two eastern outposts of the salmon ceremony are the Paviotso of Pyramid Lake who order a dance five days after the

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<sup>21</sup> Franz Boas. Notes on the Tillamook, University of California Publications in American Archaeology and Ethnology, vol. 20, 1923, pp. 9-10.

<sup>22</sup> Handbook of American Indians, Bulletin 30, Bureau of American Ethnology, 1907, p. 645.

<sup>23</sup> Stephen Powers. Indians of California, Contributions to North American Ethnology, vol. III, 1877, pp. 56, 67.

<sup>24</sup> P. E. Goddard. Life and Culture of the Hupa, Univ. Calif. Publ. Amer. Arch. and Eth., vol. I, 1903, pp. 78-79.

<sup>25</sup> Roland B. Dixon. The Shasta, Bulletin, American Museum of Natural History, 1907, pp. 430-431.

<sup>26</sup> *Id.*, Notes on the Achomawi and Atsugewi, American Anthropologist, n.s., vol. 10, 1908, pp. 212-213.

<sup>27</sup> Roland B. Dixon. The Northern Maidu, p. 198.

<sup>28</sup> A. L. Kroeber. Handbook of the Indians of California, p. 467, Bulletin 78, Bureau of American Ethnology, Washington, 1925.

<sup>29</sup> J. Alden Mason. Ethnology of the Salmon Indians, Univ. of Calif. Publ. in Amer. Arch. and Eth., vol. 10, 1912, p. 124. At present the southernmost salmon are in the Carmel River near Monterey. Dean Cobb of the College of Fisheries said that they may have occurred as far south as the Salinan River in aboriginal times, for the distribution of salmon is very variable.

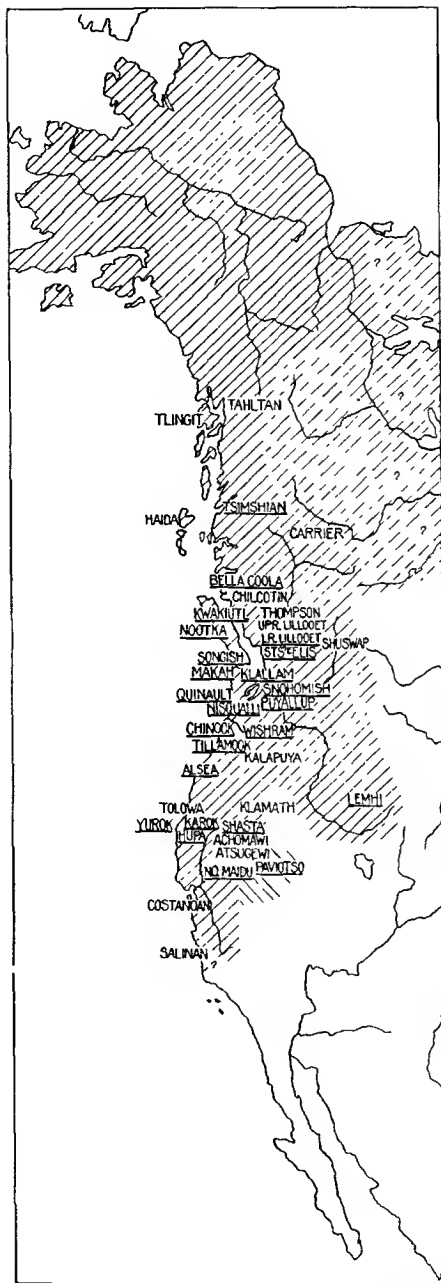


FIG. 1.—Map showing the Distribution of the tribes with the first ceremony (underlined) and the Distribution of the salmon (cross-hatched).

fish come into the lake,<sup>30</sup> and the Lemhi Shoshoni who divide the first catch and feast on it, their faces being painted ceremonially for the occasion.<sup>31</sup> The Kutenai and their neighbors certainly use salmon extensively for food yet they do not express their reverence for it by way of a ceremony.

The area in which salmon is caught extends beyond the area of the ceremony especially to the north and east. The presence of salmon in a particular place is somewhat variable from year to year, for each group of salmon goes back to the place where it was spawned. If a river is avoided one year there may not be any fish in it for several years, depending on the age of maturity of the fish.<sup>32</sup> Even within the salmon area the ceremony is not performed by every tribe that uses the fish. The Klamath Indians, who use salmon sparingly, have no ceremony and none of the taboos that are current elsewhere.<sup>33</sup> The Costanoans who were on the southern margin of the salmon area could catch the fish during the winter months when the water was high.<sup>34</sup> Their culture so far as we know was very simple so that it may be logical not to expect a ceremony among them. The accompanying map gives the general distribution of salmon on the Pacific coast and indicates the distribution of the ceremony.

The procedure of the salmon ceremony has beyond doubt grown out of the regular procedure for handling a salmon catch; the interesting feature is the amount of ceremonial action with which it is garnished and the extent to which this ritual is taken from other ceremonies of the tribe. When the Tsimshian carry the salmon into the chief's house on a mat covered with cedar leaves they are treating the fish as they would treat an honored guest, who is carried to the house on a cedar plank.<sup>35</sup> The Tsim-

<sup>30</sup> Robert H. Lowie. *Notes on Shoshonean Ethnography*, Anthropological Papers, American Museum of Natural History, vol. xx, p. 306. These people probably have a trout or red fish which is colloquially known as salmon. There is no true salmon in the Great Basin Area.

<sup>31</sup> Robert H. Lowie. *The Northern Shoshone*, same series, vol. II, 1909, p. 218.

<sup>32</sup> John Cobb. *Pacific Salmon Fisheries*, Bureau of Fisheries Document, no. 902, 1921.

<sup>33</sup> Leslie Spier. Personal Communication.

<sup>34</sup> Kroeber. *Handbook*.

<sup>35</sup> Boas. *Tsimshian Mythology*, p. 438.

shian also greet the first olachen with a ceremony that consists of roasting and eating the first catch.

The Lillooet have a bear ceremony which they share with many tribes to the north and east of them. The attitude toward the bear seems to be very much that which the coast people have toward the salmon. The Lillooet pray to the bear, just as the Kwakiutl pray to the salmon. Here arises the question whether the salmon has been substituted on the coast for the bear which is the object of reverence across northern North America and in many parts of eastern Asia.

Teit records that when the potato was first obtained, it was addressed as "chief" and the Lillooet danced to it four times before it was eaten.<sup>36</sup> When the berry crop is almost ripe the chief addresses the mountain tops and the people pick just enough for a day's supply; to keep them overnight would be unlucky. A similar taboo is found among many coast tribes with regard to the first salmon. The Sts'Elis on the Fraser River observe a similar ceremony for the first berries as they do for the first salmon. In northern California the salmon ceremony belongs to a whole group of dances which are given to produce more bountiful wild crops, abundance of salmon, prevention of flood, famine and earthquake.<sup>37</sup> The definitely local characteristic here is the recitation of esoteric formulas.

The pattern for the salmon ceremony seems to be based on a reverential attitude toward the fish and a desire to treat it in such a manner that it will come in great numbers. The actual procedure is taken from the normal handling of the catch with such additional ceremonial features as have been pointed out above. The other first-fruits ceremonies in this area share with the salmon ritual a ceremonial eating of the product in many cases followed by a dance. The possibilities for developing something strikingly different are after all limited. It is clear, however, in spite of the meager information available, that some features of the general ceremonial life in each tribe have been infused in the procedure. Californian

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<sup>36</sup> Teit. *The Lillooet*, p. 279.

<sup>37</sup> Kroeber. *Handbook*, p. 53.

tribes have a social dance where the Kwakiutl have a speech and a feast with guests sitting according to rank.

Finally, the attitude toward the salmon as expressed in mythology and taboo is the same feeling that underlies the ceremonial. The salmon myth on the Pacific coast has a much wider distribution than the ceremony, or rather it occurs among tribes for whom no data concerning a ceremony is available. The typical incidents of the salmon myth are: a boy comes to the salmon country and is told to kill some of the children for food. He is cautioned to save all the bones and throw them into the water so that the children may revive. Very frequently the boy returns home and brings plenty of fish to his village.

The Haida and Tlingit have such a myth but there is no record of a ceremony. Among the Haida is the belief that if a girl sees a salmon jumping in the creek, within a year of her puberty rites, all salmon would leave the creek. For five years after her puberty rites she is not allowed to eat salmon.<sup>37a</sup> The Chilcotin have the myth. The Quinault, who also tell such a story, express their attitude toward the salmon by the taboo that the first catch is never sold for fear that the hearts may be destroyed or fed to the dogs.<sup>38</sup>

Very frequently myths dictate ceremonial behavior. In this instance the feeling expressed in the myth and the ceremony may be regarded as alike, but the only concrete feature carried from the story to the ritual is the instruction that the salmon bones be thrown back in the water, this being based on the theory that salmon revive when their bones are returned to the river. This belief is not limited to salmon. The Shuswap who have no such regard for the salmon throw beaver bones back into the streams that they may come to life again.<sup>39</sup>

Special relations to food animals are universal and the salmon comes in for a liberal share. Throughout the salmon area there is

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<sup>37a</sup> John Swanton. *Contribution to the Ethnology of the Haida*, *Memoirs, American Museum of Natural History*, vol. VIII, pp. 48-49.

<sup>38</sup> Cobb. *Pacific Salmon Fisheries*, p. 23.

<sup>39</sup> British Association for the Advancement of Science, *Sixth Report on the tribes of Northwestern Canada*, 1890, p. 644

some association between salmon and twins. The Tsimshian believe that twins have the power to call *olachen* and salmon.<sup>40</sup> The Kwakiutl believe that twins of the same sex were salmon before birth.<sup>41</sup> The Nootka believe the father of twins to be an instrument of the salmon world and during the fishing season he devotes his entire time to singing and performing secret rituals to propitiate the salmon so that there may be a maximum catch. The appearance of twins forecasts an unusually large run. A twin child will burst into tears if a salmon is mistreated.<sup>42</sup>

When Makah twins are born during the fishing season at Tatoosh Island the parents are sent back to Neah Bay and prohibited from eating any kind of fish.<sup>43</sup> Similarly, the Klallam do not allow the parents of twins to come near salt or fresh water for one year after the birth of the children. The Klallam from all the villages along the Straits of Juan de Fuca used to go to Hood Canal in the fall of the year to catch and dry salmon. On one occasion a woman from Clallam Bay gave birth to twins there. She and her husband had to carry the children overland instead of returning home by canoe on account of this taboo. The Klallam of Dungeness relate that one of the early white families on the river had twins and they besought the father of the children not to fish because he would spoil the run of humpbacks which was then in the Dungeness River. He disregarded their petition and as a consequence there were no humpbacks in the river for twenty years.<sup>44</sup>

Here again the pattern is a relation between twins and salmon, but the relation differs from tribe to tribe.

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<sup>40</sup> Boas. First General Report on the Tribes of Northwestern Canada, Brit. Assoc. Adv. Science, 1889, p. 847.

<sup>41</sup> Brit. Assoc. Adv. Science, Sixth Report, p. 614.

<sup>42</sup> Edward Sapir. "Nootka" in Hasting's Encyclopedia of Religion and Ethics.

<sup>43</sup> James G. Swan. The Indians of Cape Flattery, Smithsonian Contributions to Knowledge, vol. 16, 1870, p. 82.

<sup>44</sup> These two incidents are taken from my recent field notes. In discussing the second incident with Dean Cobb of the College of Fisheries, University of Washington, I learned that it may be true that for many years there was no humpback run in the Dungeness River because through some accident they may not have been able to spawn there one season. After such an occurrence the fish may avoid the stream for a long time.

There is on the North Pacific coast a reverent regard for salmon which is one of the principal food animals. This regard shows itself in the rituals which are performed for the salmon, the taboos surrounding it, and in its place in mythology. The first salmon ceremony follows a pattern used in other first fruits ceremonies of the area, and draws on other ceremonial complexes of the tribe. The particular relation to the salmon is further akin to the attitude toward the bear in adjacent areas of North America and Asia. Within our area the fundamental and widespread feature of the first salmon ceremony is in the attitude toward the salmon, although its expression varies somewhat from tribe to tribe. This is of such a character as to suggest the diffusion of at least this basic idea. The diffusion of minor details among neighboring groups suggests possible historic connection in the borrowing of these ceremonial features.

SEATTLE, WASHINGTON.



## A SANDAL FROM NORTHEASTERN ARIZONA

BY A. V. KIDDER

THE sandals so commonly found in the caves and cliff dwellings of the San Juan drainage are roughly divisible into two classes: (1) those made of yucca leaves, cedar bark and other coarse materials; (2) those woven from finely twisted cords. The latter class is subdivisible into three main types: (a) the square-toed; (b) the scallop-toed; (c) the sharp-toed. The square-toed type is characteristic of the Basket Maker culture; the sharp-toed type of the pueblos and cliff dwellings.<sup>1</sup> The scallop-toed sandal has recently been determined by E. H. Morris and S. J. Guernsey to belong to the so-called post Basket Maker culture, a phase succeeding the true Basket Maker and preceding the pre-Pueblo. The pre-Pueblo sandal-type is not yet certainly distinguishable, but it seems to be rather closely analogous to that of the Pueblo period.

The above indicates the classificational value of sandals; it may not be amiss, therefore, to describe an example of the scallop-toed variety which has recently come into the writer's possession. The specimen (Pl. I, a, b) was found a number of years ago in a cave of the Chinlee system, presumably in Cañon de Chelly. As the photographs show, it is in fairly good preservation, is not rotted at all, but is chafed through in two places, and was evidently discarded by its owner as worn out. Its dimensions are: length, nine and three-fourths inches; greatest width, four and one-half inches; thickness of heel portion, three thirty-seconds of an inch. It had originally a square heel, probably drawn up by the heel-loop or the tie strings into a pucker; the heel, however, now lies flat and is rounded at the corners by wear. From the heel to within three inches of the toe the sides are straight, but diverge slightly from each other; the forward part is double thickness.

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<sup>1</sup> In Bull. 65, Bureau of American Ethnology, pl. 68, and Fig. 38, will be found illustrations of these two types. For a photograph of several scallop-toed sandals see Cummings, *Ancient Inhabitants of the San Juan Valley*, p. 10.

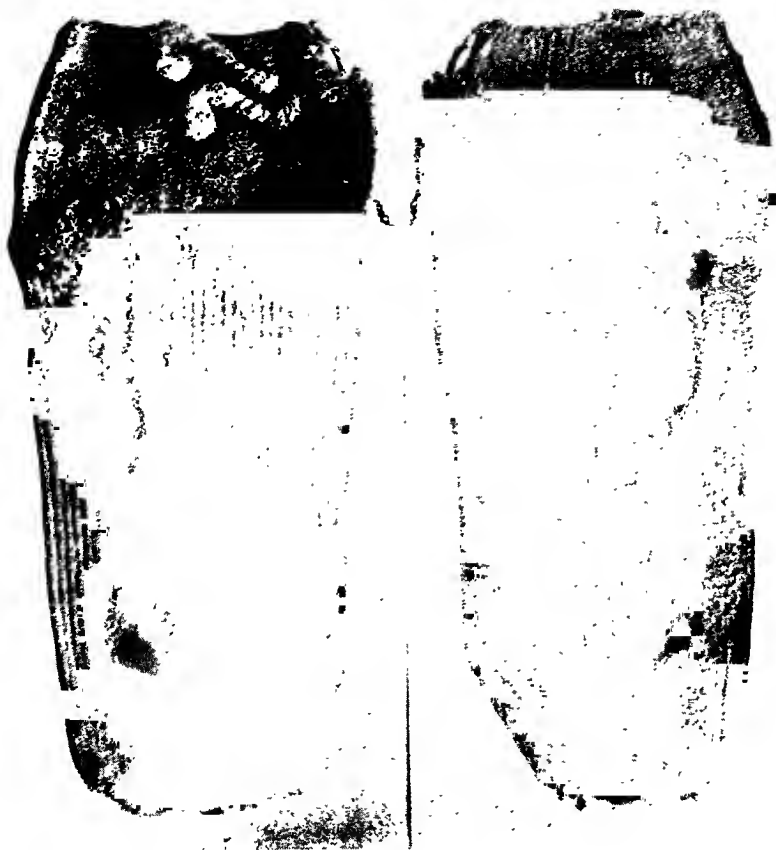


PLATE I

PLATE I, a—Upper surface of post-Basket Maker sandal.  
b—Sole of post-Basket Maker sandal.



swells somewhat, narrows again, and ends in a broad shallow scallop across the toe. The slight asymmetry of the broad forward part is not a common feature of this type of sandal, most examples not being shaped for right or left foot. Whether this particular

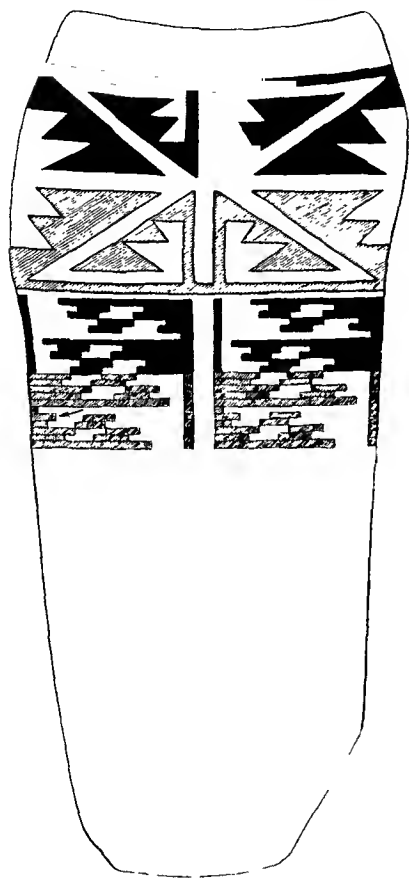


FIG. 1a

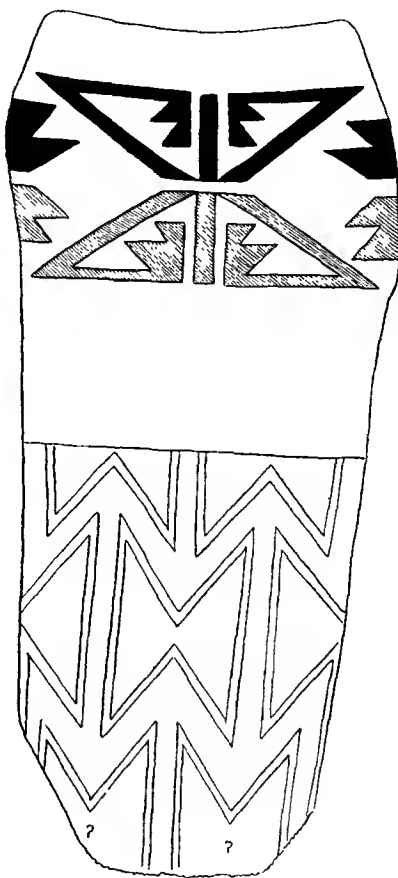


FIG. 1b

FIG. 1, a—Colored designs of forward and middle zones—upper surface of sandal.  
The dissection shown in Fig. 7 is indicated by a small arrow.

FIG. 1, b—Colored design of forward zone, and outline of raised design of rear zone—sole of sandal.

specimen was so shaped or whether its asymmetry is due to faulty weaving cannot be told; the nature of the wear and the imprint of the toes under the toe-loop show, however, that it was used on

the left foot. The toe-loop, a doubled, three-strand yucca string, is fastened securely into the fabric; it enclosed the second and third toes. The heel-loop has disappeared, though one of its attachments may still be made out (Pl. I, a, left-hand corner of heel).

The sandal is elaborately decorated. Colored designs occupy the forward half from one-half inch from the toe to four and three-fourths inches from the heel. They consist of two bands (see Fig. 1, a); the forward one covers that part of the sandal which is of double thickness (see Pl. I, a; the decoration cannot be made out in the photograph, but its position is indicated by the area of smooth-woven surface); the second band lies just behind the forward one (see Pl. I, b and Fig. 1, a). These colored designs, whose nature will be described below, appear on both surfaces. A raised pattern, occupying the remainder of the sandal to the heel, is only visible on the sole (Pl. I, b; Fig. 1, b).

To study the weaving that went into these elaborate designs it was necessary completely to dissect the specimen; it was carefully picked apart, beginning at the heel (thus reversing the process of construction); the wefts were counted and the nature of the different knots and ties recorded by drawings and by reproducing them on a weaving frame.

To make clear the weave it is necessary to start, as of course did the weaver, with the warps. These are thirty-three extremely stiff, three-ply yucca cords about one sixteenth of an inch in diameter. They run the entire length of the specimen, are doubled at the toe and turned back underneath, each one paralleling itself on the underside throughout the forward decorative zone (Fig. 2). At the rear termination of this zone they are cut off evenly (the transverse line of the clipped ends may be made out between the forward and middle zones on the under side of the sandal, see Pl. I, b).

*Toe.*—The doubling of the warps was not done until the first few insertions of the weft had been woven in. The warps were first laid out side by side, or more probably were suspended in such a way that they hung parallel to each other, with the proper intervals between them. Then, at the place where the toe of the

finished sandal was to be, there were run in ten rows of twilled over-two-under-two twined weaving (Fig. 4, a), the wefts being. (as throughout the entire specimen) of soft two-ply *apocynum*(?)

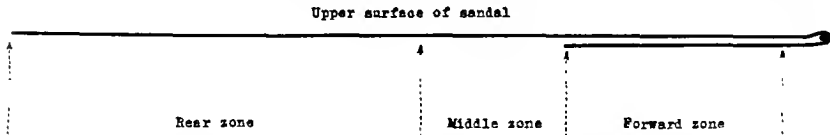


FIG. 2—Diagrammatic side view from the right of a single warp to show doubling at the toe.

string slightly less than one thirty-second of an inch in diameter. Thus was produced a strip of web not quite one half inch wide running across the warps near their upper ends, and holding them firmly together at the correct distance apart (Fig. 3). The doubling



FIG. 3—Diagram of warps with the initial strip of web woven in. The doubling to produce the toe of the sandal will take place horizontally across the middle of this strip.

now took place. A two-ply yucca cord of about the same weight and stiffness as the warp-strings was laid across the middle of the strip of web on what was to be the under side of the sandal and the strip was closely creased over it, thus bringing the shorter end of each warp into parallel juxtaposition with its longer end. As the

fabric of the narrow strip of web was tightly woven, and as the warps were very stiff, the tight creasing could hardly have been done with the fingers alone, but was presumably finished by

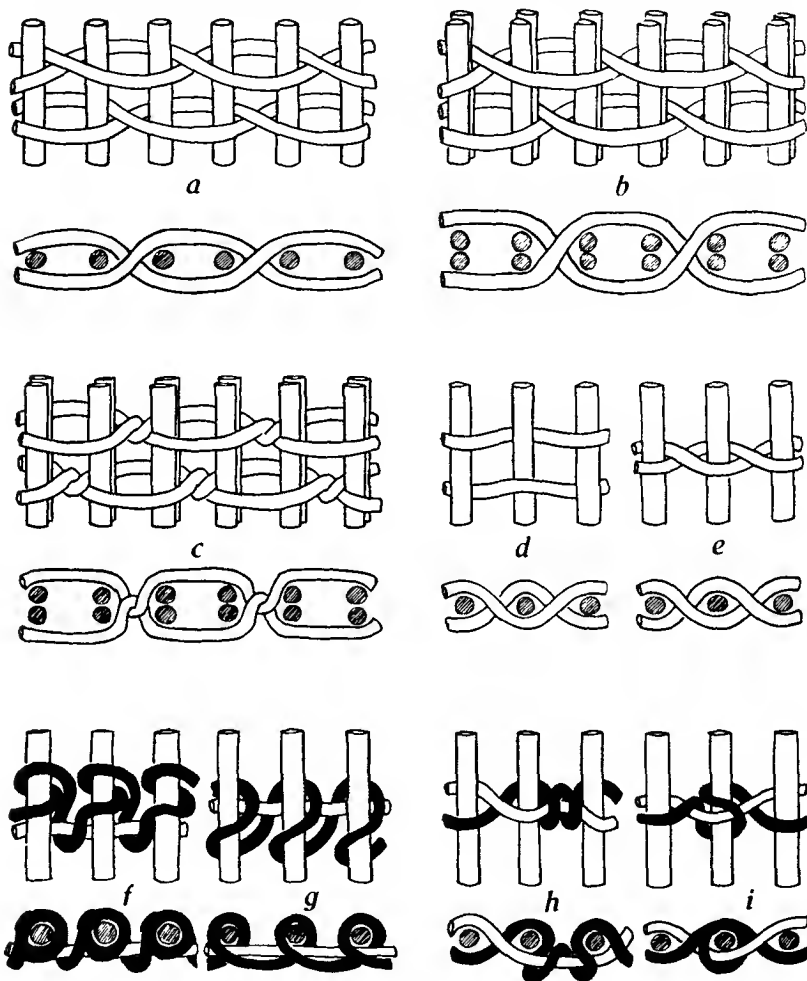


FIG. 4—The nine weaves used in the sandal (in the sectional views the sole is always below). a—Twilled twined weave over pairs of single warps. b—Twilled twined weave over pairs of doubled warps. c—Twilled lock-weave over pairs of doubled warps. d—Plain weave. e—Plain twined weave. f—“a” weaving. g—“b” weaving. h—Double-wrap knot. i—Single-wrap knot.

pounding with a smooth, heavy stone. The twilled over-two-under-two twined weaving was now continued, but instead of

being over pairs of single warps, it took in the doubled warps (Fig. 4, b) and so bound the turned-down shorter ends firmly to the longer ones. Where the doubling took place there was left running across the toe of the sandal, a narrow tunnel or tube in the fabric. In the tube there remained the yucca cord over which the crease was made. In the dissection of the sandal this cord was

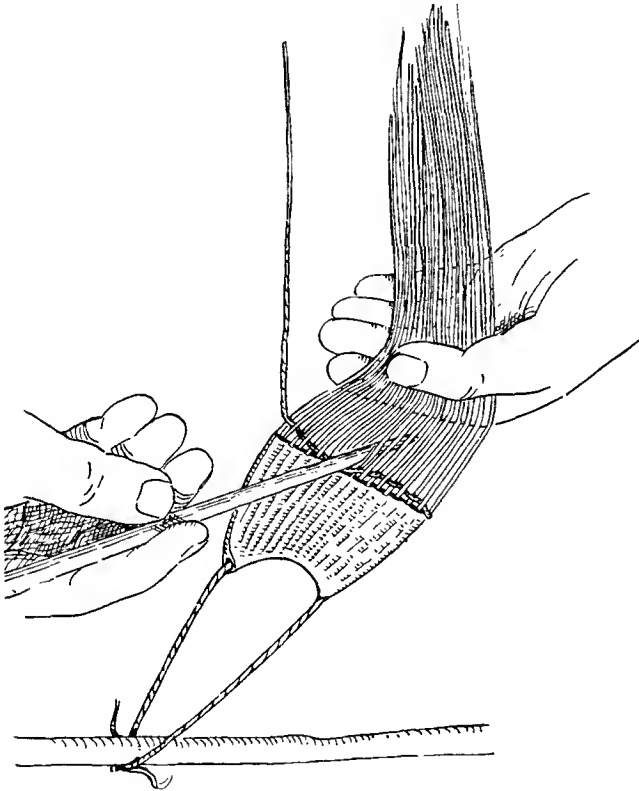


FIG. 5—Probable method of suspending sandal by toe-string during weaving.

found still in place, closely clipped off at either end of the tube. I think there is little doubt that the cord was originally a long one whose free ends served to attach the growing sandal to a rigid support in order that there might be something to pull against while the weaving progressed (Fig. 5). I also think it possible that the curving or scalloped form of the toe is due to the pull of this string during the first stages of the weaving (Fig. 5).



The next twelve rows of the fabric were twilled over-two-under-two twining both wefts being natural color *apocynum*. At the end of the twelve rows, or at about five-sixteenths of an inch from the toe of the sandal, was begun the insertion of the forward decorated zone.

*Forward Zone* (colored design).—This zone was made in twilled over-two-under-two lock-weave, the weft-pair consisting of one natural color string and one dyed string. The pattern occupies the broad or swelled part of the sandal and is shown on Figures 1, a and 1, b. The front half is in black and natural color, the rear half in some dye (red, brown, or perhaps yellow) which has faded

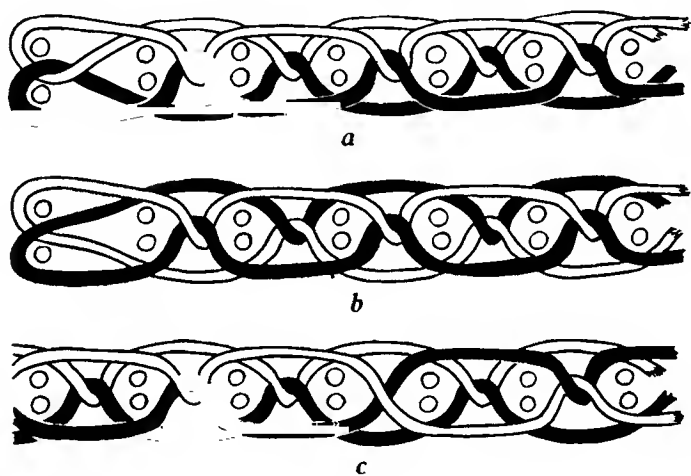


FIG. 6—Diagrams of lock weave. Each diagram is an end view of two rows. a—Selvage at a part of the sandal where the surface is in natural shade, the sole in color. b—Selvage where there is a shift at the edge from natural (front row) to color (rear row). c—Body of the weave with change in front row from natural to color.

badly (shown by shading in the drawings, Figs. 1, a; 1, b) and natural color. The lock-weave (Fig. 4, c) allowed the colored weft to be kept on the upper side or on the sole as desired; but the colored weft was always visible on one surface or the other; hence, the pattern on the sole is the exact reverse of that on the upper side (Figs. 1, a; 1, b). The weave, as was said above, was twilled; i. e., the wefts pass over more than a single warp. In this case the order was over-two-under-two, and each successive pick of weft was offset one warp (see Fig. 6), thus producing a flat surface

rather than a ribbed (or rep) one (compare forward and rear parts of the upper surface of the sandal, Pl. I, a). The two-string warps were treated as single cords (see Figs. 4, c; 6) except at the two edges of the sandal. At the edges the two strings of the exterior warp were separated and each element of the weft-pair encloses a single one of them (see Fig. 6, a, b). This resulted in a slight thickening at the edge and produced a strong, neat selvage. When in weaving the pattern, it was desired to shift the color from dyed to natural, or vice versa, it was done as shown in Fig. 6, b, c, the former illustrating a shift at the selvage, the latter a shift in the body of the weave.

The front half of the design consisted of forty rows, then came a series of six rows in which both wefts were of natural color (the plain transverse band between the two parts of the pattern—Figs. 1, a; 1, b); and the rear half was made up of forty rows.<sup>2</sup> At the rear end of the design there was one row of over-two-under-two twined weaving in natural color; this was the last row over the two-strand warps, for at this place the lower series of warp-strings was clipped off, and in the rest of the sandal the warps were single (see Fig. 2). At this point, also, there was laid in one new warp (the fifteenth counting from the right side and looking from above) making thirty-four warps in the rear part of the specimen. Two rows of plain twined weaving in natural color were now introduced (the plain narrow transverse band between the forward and middle zones—see Fig. 1, a).

*Middle decorated zone* (colored design).—This zone, like the forward one, was in two parts, a front and a rear, and again the pattern was duplicate, the front half in black and natural, the rear half in the same badly faded brownish dye (shaded in the drawing, Fig. 1, a) and natural. This zone cannot be made out in the photograph of the upper side of the sandal (Pl. I, a) because the weave of the upper surface, though slightly different in detail, is so like that of the upper side of the rear zone that the line of demarcation between the two cannot be seen. On the under side

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<sup>2</sup> During the dissection of the sandal no knots were found. When a new piece of weft material was to be added, it was apparently merely twisted to the end of the old string and woven with it for two or three insertions.

(Pl. I, b), however, the middle zone, lying between the raised pattern of the rear zone and the smooth surface of the forward zone, may be clearly observed. The design was produced by using, as before, a two-string weft, one strand dyed, one in natural color. There were forty-four crossings of the weft pair, twenty-two in the front half, twenty-two in the rear half. Each left-to-right crossing (counting from the toe and looking from above) was in what we may call "a" weaving each right-to-left (or every other) crossing in "b" weaving. One "a" and one "b" crossing taken together made up one horizontal line in the pattern, which had, accordingly twenty-two lines, eleven black, eleven brownish (see Fig. 1, a).

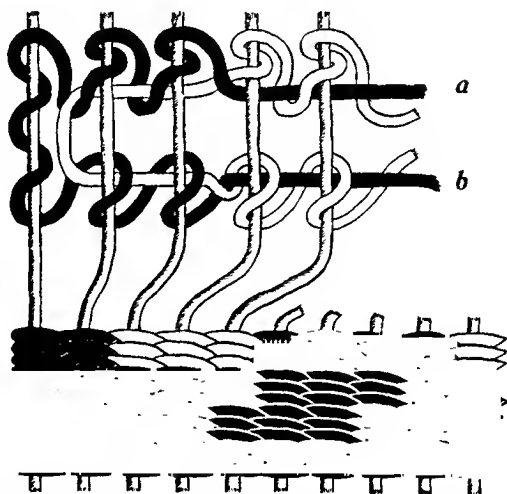


FIG. 7—Magnified drawing of weave of middle decorated zone. The diagram shows parts of four lines of the pattern in the web, and one line, i.e., two crossings of the paired weft, dissected out (this line is indicated by a small arrow in Fig. 1, a).

Both "a" and "b" weaving are alike in having at all times one active (and visible) element and one passive (and hidden) element. In "a" weaving the active element is wrapped about each successive warp in such a way that it crosses it twice on the upper side and once on the lower (Figs. 4, f; 7, a); between the warps it encircles the passive element, which runs straight across on the under side of the warps and is entirely hidden from above when the weave is pulled tight.

In "b" weaving the active element is wrapped about each successive warp in such a way that it crosses it once on the upper side and twice on the lower (Fig. 4, g; Fig. 7, b); in wrapping the warp it also encloses the passive element, instead of taking it in between the warps as was done in "a" weaving. The passive element runs straight across on the under side of the warps and is entirely hidden from above.

As the web of this zone is made up of a double weft, one strand colored, the other light, it will be seen that when the colored strand is active the surface of the sandal at that place will be colored (the passive element being always hidden, see Fig. 7). The reverse, of course, occurs when the light (or natural colored) strand becomes active. The pattern produced is always sharp and clear on the upper surface because only the active element is there visible, but on the sole it is much blurred by the appearances of the passive element which is not entirely hidden on that surface. (For this reason the design is not reproduced in the drawing of the sole—Fig. 1, b).

It was said above that "a" crossings alternated with "b" crossings and that a pair ("a" and "b") made up one line of the design. Each line has three upper side emergences of the active element (two in its "a" row, one in its "b" row—see the dissected-out single line of two rows in Fig. 7). The pattern was produced by alternating colored weft with natural shade weft along the lines, the change always taking place at the same warp in each paired "a" and "b" row; this may be seen in Figure 7 where a change in color is shown dissected out. The same figure illustrates the method of making the selvage by a triple twist of the active element about the exterior warp, the passive element turning back at the second warp.

*Rear zone* (raised pattern).—The web of the rear zone was produced by using only natural color wefts, so manipulated as to produce on the sole a raised pattern (see Pl. I, b). This area was separated from the middle zone by three rows of plain twined weaving.

The weave of the rear zone is as follows: first (counting from the toe end of the design) comes a row of twined-work complicated

by loopings of the wefts (see Fig. 8, a); this is called a "knot bearer" crossing; the knots and the part they play in producing the raised pattern will be described below. When this row of weaving reaches the left hand edge, one of its elements makes a double turn about the exterior warp, the other a single turn about the warp next within; the two elements then recross the sandal in plain twined weaving (Fig. 8, b; Fig. 4, e); on reaching the right edge the element that made the single turn at the left side makes a double turn about the right exterior warp, recrosses the sandal in plain over-and-under weaving (Fig. 8, c; Fig. 4, d), turns once about the left exterior warp, returns in the same plain over-and-under weave (Fig. 8, d), turns once about the right exterior warp, and there joins with the other weft element (which makes a single turn about the warp next to the exterior one) to form another

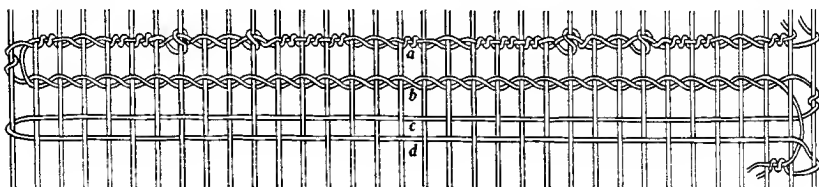


FIG. 8—Diagram of the weft crossings that go to make up each one of the sixty-eight or seventy rows in the rear zone. The knot bearer here shown is indicated in Fig. 9 at a-a.

"knot bearer," the beginning of a new series. There were in the raised decorated part of the sandal about seventy series like the one just described: i.e., one "knot bearer" row; one plain twined row; one double crossing (over and back) in plain over-and-under weaving of one of the weft elements by itself. The first sixty-five "knot-bearers" are reproduced in Fig. 9; the last five or six at the heel were too badly worn to be dissected out with certainty; hence their omission in Fig. 9 and the interrogation points in Fig. 1, b.

While all of the series are the same in sequence of rows, the knots in the "knot bearer" rows are so varied as to their number and their position in the rows as to produce the pattern shown in Pl. I, b; Figs. 1, b, and 9. The knots are of two varieties:

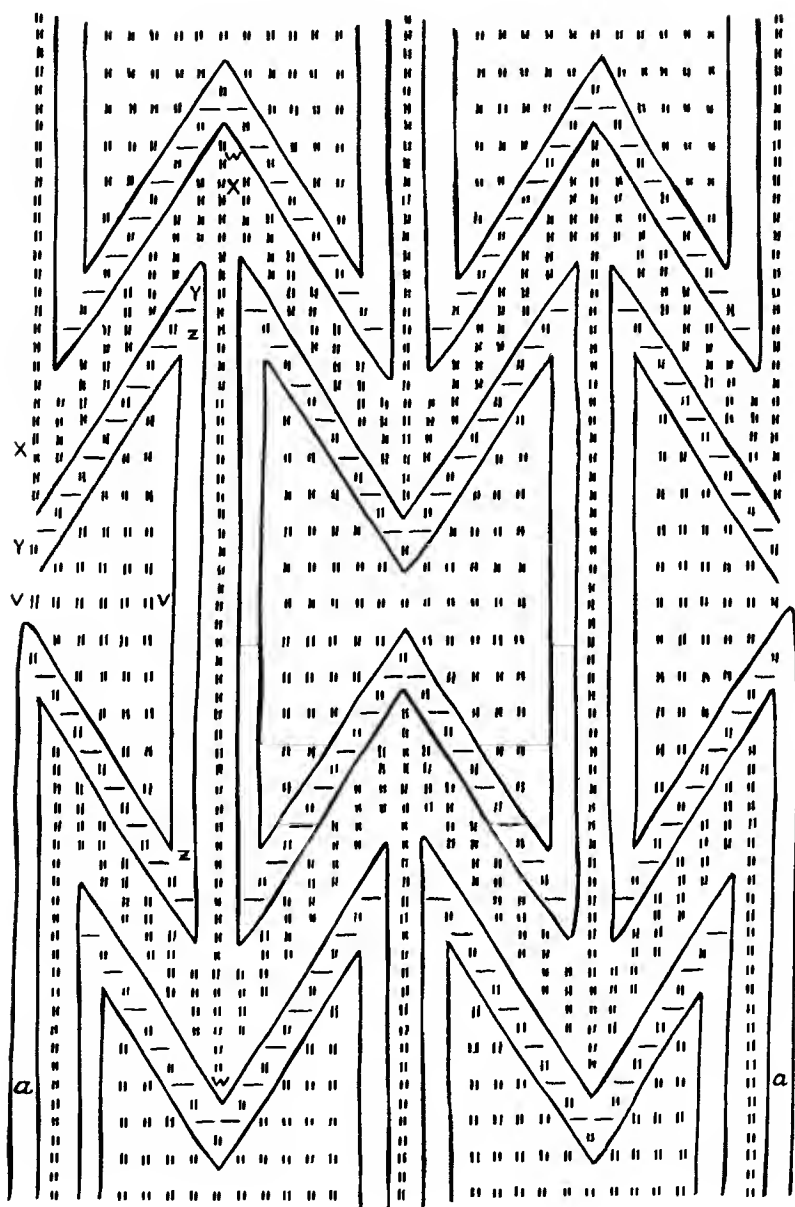


FIG. 9.—Diagram showing arrangement of knots in the first sixty-five of the sixty-eight or seventy knot-bearer weft crossings in the rear zone of the sandal (compare Pl. 1, b and Fig. 1, b). The knot bearer reproduced in Fig. 8, a, is here shown at a-a.

(1) The double wrap of one weft about the other (Fig. 4, h, represented by pairs of vertical marks in the diagram, Fig. 9); this results in a little round protuberance on the under side lying between two warps; the work is pulled so tight that the knot only shows on the under side. (2) The single wrap of one weft about a warp (Fig. 4, i, represented by horizontal marks in the diagram, Fig. 9); this results in a short transverse bar over the enclosed warp, also visible only on the under side. These two kinds of knots, variously disposed in the "knot bearer" rows, are the units of the pattern. The rows of plain twined and plain over-and-under weaving that come between the "knot bearer" rows serve to keep the latter apart and thus throw the design into high relief. The pattern as a whole has five sorts of elements: (1) transverse rows of double wrap knots; these rows form the fillings of the enclosed triangular fields (Fig. 9, v-v); (2) longitudinal rows of double wrap knots, i.e., the broad longitudinal bands of the pattern (Fig. 9, w-w); (3) oblique rows of double wrap knots, i.e., the broad oblique bands of the pattern (Fig. 9, x-x); (4) oblique rows of double wrap knots alternating with single-wrap knots: i.e., the narrow oblique bands (Fig. 9, y-y); (5) single warps which have no knots on either side of them: i.e., the narrow longitudinal bands which connect with the narrow oblique ones (Fig. 9, z-z).

*Terminal tie.*—With the insertion of the last row of twined-work in the rear zone the weaving of the sandal proper was completed. It was now necessary to finish off the work with some sort of tie to hold the warp-ends firmly in place, and prevent the raveling out of the fabric. This was done in the following manner: A stout yucca cord, three-sixteenths of an inch in diameter, was placed across the warps at the place where the square heel was to be; each warp was then made to take a double turn about it from below and was finally brought back around it in the upper surface. The end of each warp was held in place and locked down by the first turn of the warp next in order (see Fig. 10). Lastly, the ends were trimmed off close. How the outside warps were held, and how the two ends of the transverse cord were fastened could not be made out, because the corners of the heel were worn away. It also was not possible to determine whether or not the heel had

originally been puckered up at the corners, as was often done with this sort of sandal.

The sandal that has just been described is an average specimen of its type. There are in museums many examples of finer workmanship. Yet, into this apparently every-day piece of footgear there went about thirty-five feet of three-strand yucca warp, and (at a very conservative estimate based on measurements of dissected-out lengths of weft at various parts of the fabric) 424 feet of weft; and the latter is two-ply, so that there was used a total of 848 feet of fine *apocynum* string. When it is considered that the necessary raw material had to be gathered, the fiber extracted from its parent leaves or stalks, sorted, cleaned, combed, and spun by hand, it can be realized what a tremendous amount of merely preliminary work had to be done. Then, a large part of

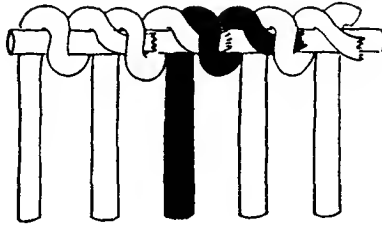


FIG. 10—View from above, showing method of attachment of warps at the heel.

the weft-material was dyed, and finally the complicated fabric was woven. Nine sorts of weaves were employed; the paired weft was run across the warps 437 times, and in the raised pattern on the rear end of the sole there were made more than 1,000 knot-like loopings. During the dissection of the specimen not a single error of any kind came to light.

As to how the sandals of this type were made we have no exact knowledge, for no unfinished example has so far been described. It is obvious that the weaving began at the toe, and there is a strong presumption that the work hung free, because the fabric is almost entirely twined; and twining, which involves the constant crossing of the wefts over each other, would hardly have been practicable if the lower ends of the warps had been held fast in any form of frame or loom. The weave is so tight and stiff that it



must have been beaten home after the introduction of every pick of weft, probably with a slim wooden or bone tool (see Fig. 5).

One is at a loss to account for the making of such beautiful sandals for such humble service. There is little or no reason for supposing that these sandals were ceremonial, for they are found abundantly in the rubbish of all post-Basket Maker caves; coarse sandals, indeed, seem not to have been commonly worn until a much later period. It is a mystery why colored designs so handsome should painstakingly have been woven where they were entirely invisible when the sandals were in use, and where they would quickly have been obscured by sweat and dirt. The raised patterns of the soles were doubtless serviceable in giving extra wear, and in providing a firm grip on smooth rocks, but the extraordinary richness and variety of these, and of the colored decorations as well, can only have been due to pride of craftsmanship, or to magical beliefs.<sup>3</sup>

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<sup>3</sup> The two sandals of a pair were apparently always alike; duplicates not in a pair, however, have yet to be found.

## THE CATTLE COMPLEX IN EAST AFRICA

By MELVILLE J. HERSKOVITS

(Concluded)

### III

IN THE preceding chapter, it has been attempted to demonstrate that the culture of the peoples of East Africa may be grouped together, the most outstanding trait in all their cultures and that most decisive for such classification being the cattle complex. However, the area is surrounded by other regions, some of which have cattle, some of which lack them. It will be well, therefore, to differentiate the culture of the area considered from that of neighboring regions, for otherwise the limits of the East African area cannot be defined.

#### 1.

In the extreme south of the continent, west of the Kaffirs, the Zulu and the Basuto, we find the Kalahari and Karoo deserts. In these dreary stretches, where it is most difficult to obtain a living, exist the Bushmen, or, as they were originally called, the Bosjesmans.<sup>394</sup> They extend, or extended, from Lake Ngami on the north as far south as the Karoo desert, and to the west as far as Namaqualand.<sup>395</sup> Pressed into their inhospitable country by their neighbors, they are distinguished for their independence, their fierceness, and their unwillingness to compromise or forfeit their freedom in any way to their more powerful neighbors, black or white.<sup>396</sup> It is not difficult to distinguish the culture of the Bushmen from that of the East African cattle-keepers, and only enough will be mentioned of their civilization to so distinguish them. Ratzel observes:

The idea of a hunting race covers the whole contents of the Bushmans' life at all ages and in all positions.<sup>397</sup>

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<sup>394</sup> Fritsch, *Die Eingeborenen Südafrika's*, vol. I, pp. 387-388,

<sup>395</sup> Fritsch, *op. cit.*, vol. I, pp. 386-396, discusses their earlier range.

<sup>396</sup> Ratzel, *History of Mankind*, vol. II, p. 268; Barrow's "Account" of his travels is full of harrowing tales of the fierceness of these people.

<sup>397</sup> *Ibid.*, vol. II, p. 267.

while Schultze agrees with him:

Die Hauptnahrung liefert dem Buschmann der Sud-Kalahari auch heute die Jagd: . . . .<sup>398</sup>

Barrow, visiting the Bushmen in 1797, also remarked that the individual

neither cultivates the ground nor breeds cattle; . . . though marks of their industry appeared in every part of the country, in their different plans of taking game.<sup>399</sup>

Perhaps the most illuminating sketch of Bushmen life is that given to Bishop Callaway by a Kafir:

The Abatoa are much smaller than the other children of men; they hide in grass and sleep in ant-hills; they go into the mists; they live in high rocks; they have no settled place of abode; their home is wherever they kill game; they eat it all up and go on. . . .<sup>400</sup>

This is the life of the Bushman in miniature. He has no settled habitation, but lives where the game go, or in chance caves which give him shelter.<sup>401</sup> His only use of cattle is to eat them, and Barrow relates one instance after another in which the herds of the Dutch settlers were raided by these intrepid desert-dwellers. Marriage is not a matter of dowry, but of a mere present to the parents of the girl:

Dem Buschmann ist das Herz nicht so voll von seinen Ochsen wie bei den gepriesenen Kaffern und somit ist noch Platz darin für Frau und Kind; die Frau rangirt nicht gleich so und so viel Stück Vieh und ist daher bei diesem verachteten Stamm relativ viel angesehener, als bei ihren Verächtern.<sup>402</sup>

Polygamy is difficult, because of their mode of life, and the general poverty. Material possessions are few, and the bow and arrow are perhaps prized above everything else. It would be difficult to

<sup>398</sup> Schultze, *Aus Namaland und Kalahari*, p. 659. Passarge, *Die Buschmänner der Kalahari*, pp. 40 ff., gives an account of the daily life of a Bushman family, which shows how completely true these statements are.

<sup>399</sup> *Op. cit.*, p. 284. See also Stow, *Native Races of South Africa*, ch. v, for an account of their hunting methods.

<sup>400</sup> Quoted by Ratzel, *op. cit.*, vol. II, p. 268. No reference is given.

<sup>401</sup> Schultze, *op. cit.*, p. 653; Passarge, p. 17, states that "Feste Städteanlagen und politische Grenzen scheinen ganz zu fehlen . . . ."

<sup>402</sup> Fritsch, *op. cit.*, p. 444.

conceive of anything more different from the East African culture. There are no cattle customs, for they have no desire to keep cattle. There is no political or settled and organized social life other than that of the "horde." Barrow mentions a village of twenty-five huts, but he saw only one such, and no one seems to have discovered another.<sup>403</sup> There are no milk taboos such as the East Africans manifest, nor are there apparently any occupations strictly limited to one sex, except hunting. This bare outline of Bushman culture is thus sufficient, to prove that it is basically dissimilar to that described in the previous chapter.

2.

The Hottentot, the second group from which the Bantu cattle-keepers are to be distinguished, inhabited in earlier times the region west of the Kafirs, Bechuana, and Matabele, exclusive of that portion of this territory occupied by the Bushmen. Through White oppression, they have shrunk to a handful, the best representatives remaining today living in Namaland. They are, or were, divided into three principal groups: the Namaqua Hottentot, the Koranas and the Griquas.<sup>404</sup> Along the west coast to the north, are the Ovambo and Ovaherero, Bantu peoples, whose cultures are similar to that of the Hottentot and East Africans, but who may be considered rather as transitional between their southern cattle-keeping neighbors and the Congo area to the north.<sup>405</sup> It is not so simple a matter to differentiate the culture of the Hottentots from that of the East African area as in the Bushmen case. A negative position is all that can be here assumed; and I will merely attempt to point out why placing the Hottentot in the East African cattle area would be unjustified. The Hottentot present many perplexing questions of distribution, which are problems in themselves, and into which it is impossible to inquire in this essay.

They have numerous cattle, which are of the utmost im-

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<sup>403</sup> Op. cit., p. 275; see also Fritsch, op. cit., p. 386.

<sup>404</sup> Stow, op. cit., p. 138.

<sup>405</sup> Ratzel, op. cit., vol. II, pl 463 ff., 538 ff.

portance to them.<sup>406</sup> The raids of the Bushmen on their herds has already been remarked. As in East Africa, a man's cattle sets his place in the group to which he belongs, and are the index of his richness. But there are differences between the general settings in which cattle are found among the two groups. In the first place, the general organization of the communities is different; that of the Hottentot is loose, unsettled, and not comparable to the well-organized, sedentary communities in all of East Africa. There is nothing like the complex political organization found in East Africa: the Hottentot lived in "hordes" and the ruler, if there was one, was the "captain." Again, the Hottentot did not rely on agriculture at all. In East African area the cattle complex, important as it is today, must be regarded as a cultural layer superimposed on an underlying agricultural stratum. In the southern portion of the area, agriculture is universally practised, and cattle serve more as a basis for invidious comparison than for food purposes, the use of milk to the contrary notwithstanding. Even in the northern portion, where the cattle complex reaches its greatest intensity, there are individuals, usually in a state of subjugation, who supply the herders with the vegetable food they wish. But among the Hottentot we find almost a pure herding culture. In the list of work done by men and women, Fritsch makes no mention of gardening; similarly Schultze mentions only cattle- and sheep-raising and hunting as their occupations.<sup>407</sup>

Further, the culture of the Hottentot is so dominated by the single economic fact of cattle-keeping that they have little of the sedentary life characteristic of the East African peoples. They live in small round huts, the frames made of poles bent together to make an inverted bowl, over which mats are thrown.<sup>408</sup> These huts are temporary, and the "horde" moves from place to place in search of proper feeding-ground for the cattle. A use of oxen which occurs nowhere in East Africa is their conversion into pack-

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<sup>406</sup> Schultze, *op. cit.*, p. 254 ff.; Amdersson, *Lake Ngami*, p. 256; Ratzel, *op. cit.* vol. II, p. 289.

<sup>407</sup> Fritsch, *op. cit.*, p. 323; Schultze, *op. cit.*, p. 253 ff.

<sup>408</sup> See illustrations in Fritsch, vol. I, p. 317, fig. 61; Schultze, p. 228 ff. gives a detailed account of this type of hut, with illustrations.

animals; they are used to transport the effects of their owners. According to a much-quoted passage from Andersson:<sup>409</sup>

When they move their habitations, these mattings and the framework of the hut, which consists of semicircular boughs, are packed on oxen. Their household utensils, such as calabashes, milk-pails, pots, etc., are suspended to the boughs, and in the midst of all this confusion is often seated the good dame of the house, surrounded by her promising offspring.

There may be recalled, on the other hand, the attitude already mentioned of the East Africans toward their cattle. The Ba-Ila, e.g., feel that it is unethical to make their cattle work, and this is not far from the general opinion. It has been comparatively easy, however, for the Hottentot to become the drivers of ox-carts for their Boer masters, for the custom is not in the least repulsive to their general cultural pattern.

The relation of women to cattle is also different in the two areas. Among a large number of East African tribes, women may not have anything to do with cattle. When they do care for them as frequently as not the men do the actual milking. The Hottentot women, however, care entirely for the cattle; the men do nothing but take them to their pasturage and bring them from it. Milk-drinking is often restricted in East Africa, as far as women are concerned, particularly at the time of puberty. Yet Barrow observed a custom whereby the girl at puberty is restricted to a milk diet,<sup>410</sup> though Fritsch records that menstruating women may not enter the kraal. The women do the actual milking, and the meat eaten by the women comes from different animals than that which the men eat.<sup>411</sup> Schultze also observes the difference:

Während bei den viehhaltenden Bantustämmen Südafrikas das Melken Geschäft des Mannes ist, melken bei den Hottentotten regelmässig die Frauen und Mädchen, der Mann nur aushilfsweise. . . .<sup>412</sup>

A milk custom never found among the Eastern Bantu, again, is the mixing of fresh milk with water for drinking purposes; it will be remembered that in all the East African area it is drunk mostly

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<sup>409</sup> Op. cit., p. 253.

<sup>410</sup> Op. cit., p. 163.

<sup>411</sup> Stow, op. cit., p. 272.

<sup>412</sup> Op. cit., p. 257.

soured, while diluted milk is never drunk, to the knowledge of the writer.<sup>413</sup> The Hottentot are avid meat-eaters, and their custom, of cutting meat of a carcass in long strips, throwing these on the fire, and eating them by placing one end of a strip in the mouth and gradually drawing it in, is also unknown in East Africa.<sup>414</sup> The general importance of women is much greater among the Hottentot than among the East African peoples. Schultze remarks on the greater power of the women in the household: how she may refuse the man details of the management of her house, while

sie hat der Verwaltung der Vorräte unter sich, der Mann bittet Milch und sie gibt ihm.<sup>415</sup>

The importance of the inheritance customs noted in East Africa is lacking among the Hottentot. Stow makes no mention of them; Schultze remarks that he has no opinion, since he observed no cases. Ratzel briefly states:

The first-born son is the only heir of his parents; other children have an ox or two, or a few sheep, given them when they marry.<sup>416</sup>

Fritsch devotes a brief paragraph to the subject: The oldest son is principal heir; failing sons, the nearest male relative inherits; daughters never inherit; the younger sons are dependent on the bounty of their elder brother, who may either give them enough cattle to make them independent, or allow them to live with him as subordinates.<sup>417</sup> At the death of a person, cattle are killed as a banquet to his friends and relatives.<sup>418</sup> In these customs we find points of resemblance to those of East Africa; there does not seem to be the detail worked out here which is noticed in the latter area, and there is presumably lacking that legalistic element of attention to all possible contingencies, which is so characteristic of the East African area. It is always possible, of course, that we are handicapped by insufficient reports of the Hottentot customs,

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<sup>413</sup> Fritsch also comments on this difference, p. 325.

<sup>414</sup> Theale, *History and Ethnography of South Africa before 1795*, vol. 1, p. 39

<sup>415</sup> *Op. cit.*, p. 299.

<sup>416</sup> *Op. cit.*, vol. II, p. 291. No source for this statement is given.

<sup>417</sup> *Op. cit.*, p. 335.

<sup>418</sup> Andersson, *op. cit.*, p. 257.

but the distinctions made above are tenable if based on the material at hand. In marriage, cattle are passed between the man and his proposed father-in-law, but not, apparently, as in East Africa. Andersson states that "an ox or cow is . . . killed outside the door of the bride's home, and the ceremony is over,"<sup>419</sup> the consent of the girl's parents having been given first. Ratzel says that if a man's request for the daughter of another be favorably received,

his people come next day to the bride's kraal with the oxen ordained for the wedding feast, and there slaughter them and arrange for the meal.<sup>420</sup>

Schultze also remarks this slaughtering of cattle at the marriage, and that each party to the match gives his or her mother-in-law a cow.<sup>421</sup> However, none of the observers record anything which parallels the careful systems to be noticed all through East Africa; there is no mention of divorce, though Fritsch remarks it among the Ama-Xosa in the same work in which he treats of the Hottentot.<sup>422</sup> The cattle given in marriage would seem to be only for a feast, and not for ensuring the good treatment of the wife and enriching her father, as is usually the case in East Africa.

It is seen, then, that despite the many resemblances which are to be observed between the cultures of the Hottentot and of the East African tribes, there are differences which make it unlikely that the two should be classed together. The differences in economic organization and character of the two cultures, in approach and importance attached to such similar phenomena as inheritance and the passage of cattle for one's wife, or milk-customs, all indicate that we are dealing with two cultures, which, though undoubtedly mutually influenced, cannot be regarded as analogous. There are numerous Bushman influences perceivable in the Hottentot culture, which have no place in East Africa, such as the high regard for women, the general nomadic character of the people, and the loose political organization. If the Hottentot culture be surveyed with regard to its neighbors, it may perhaps,

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<sup>419</sup> Op. cit., p. 257.

<sup>420</sup> Op. cit., vol. II, p. 291.

<sup>421</sup> Op. cit., p. 298.

<sup>422</sup> Op. cit., p. 113.



be said to be of the type termed "marginal": that it partakes of the culture on all sides of it, but does not show enough positive elements to be classed as an independent active culture.

3.

It is much less difficult to contrast the culture of the Congo. In the field of material culture, this has been done by Leo Frobenius<sup>423</sup> and the maps he provides as to the distribution of shields, dress, bows, houses, masks,<sup>424</sup> of human representations, pipes, tattooing, ornamentation, stringed instruments, wooden drums, knives,<sup>425</sup> and the use of the banana,<sup>426</sup> all show a striking unanimity over the region comprised in the basin of the Congo. He does not map, however, cultural elements comparable to those discussed in the preceding chapter, and a presentation of some of the differences in these elements between the two areas will serve to make the distinction even clearer.

Johnston, in speaking of the culture of the Congo area as a whole, remarks,

Domestic cattle scarcely exist in North Congoland . . . there are no cattle among the Nyamnyam, Mañbettu . . . northern Mubangi, [nor] on the Aruwimi, though the instant the traveller leaves the watershed of the Congo to enter that of the Nile he will find . . . oxen of the Galla type.<sup>427</sup>

The transposition from the one to the other is sufficiently startling. Schweinfurth noticed it, as has been quoted above.<sup>428</sup> The Bongo, according to him, depend entirely on agriculture for subsistence, though they do some hunting and a little fishing. Their only domestic animals are goats, poultry, and dogs. They are iron-workers, and throughout the Congo much more importance is placed on iron-working than is the case in East Africa. The Bongo use the hoe as the measure of value, and, in rough form, the metal is stored and treasured, for

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<sup>423</sup> Ursprung der Afrikanischen Kulturen.

<sup>424</sup> *Id.*, Karteblatt I.

<sup>425</sup> *Id.*, Karteblatt II.

<sup>426</sup> *Id.*, Blatt 4, Karte XXV.

<sup>427</sup> H. H. Johnston, *Grenfell and the Congo*, vol. II, p. 620.

<sup>428</sup> See p. 29.

it serves as well as the lance-heads and spades for cash and for exchanges, being available not only for purchases but for the marriage portions which every suitor is pledged to assign.<sup>429</sup>

The Niam-Niam, also, have no cattle, but are hunters and agriculturalists, the only domestic animals being dogs and poultry.<sup>430</sup> The Monbuttoo, also, are agricultural people, hunting for their meat, and being fond of goats, which they procure by raids, and which they do not breed but eat.<sup>431</sup> These tribes, it will be remarked, are just on the northern watershed of the Congo, and are neighbors of the Dinka, Shilluk and Nuer, all of whom have distinct cattle cultures. It may be true that this abrupt change is due to the fact that cattle cannot exist in the forest region, but there is an undeniable difference in cultures because of the absence of these animals. Thus, the importance of hunting and fishing is much greater in the Congo than among the East African tribes. The position of women among the Monbuttoo is much higher than among the cattle-owning tribes. There are, of course, none of the numerous milk-customs and milk-taboos of East Africa, and sour milk as an important article of diet is entirely absent. The daily routine of the individual presents a vastly different aspect: there is no herding or milking to be done, but the farm is the important thing, or hunting or fishing.

Farther inside the Congo region, there are the Bakongo. "Le Mukongo est exclusivement pecheur"<sup>432</sup> and he uses the river as his chief producer of food, though certain Azande, who have settled among this tribe, cultivate land on the left bank of the river.<sup>433</sup> Among the Bangala, agriculture is carried on on a small scale, for the fertility of the land and the climate make close cultivation unnecessary.<sup>434</sup> For domestic animals, they have chickens, dogs, goats and sheep, and they eat vegetable food, fish, and meat of all their domestic animals.<sup>435</sup> Milk is abhorred,

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<sup>429</sup> Op. cit., vol. I, p. 279. All of ch. VII is devoted to a description of the Bongo.

<sup>430</sup> *Ibid.*, vol. II, pp. 1 ff.

<sup>431</sup> *Ibid.*, vol. II, ch. xv.

<sup>432</sup> Calonne Beaufaict, *Etudes Bakongo*, p. 53.

<sup>433</sup> *Ibid.*, p. 76 ff.

<sup>434</sup> Van Overburgh, *Les Bangala*, p. 173.

<sup>435</sup> *Ibid.*, p. 97 ff.

the person who drinks being regarded as unclean.<sup>436</sup> The woman supplies her husband with vegetable food while he gives her meat and fish; there is much pottery made by the women, while the men who work the iron are honored in the community. Unlike the case in most of East Africa, the produce of a woman's farm is her own, to dispose of as she wishes, and if she sells any of it her husband may not claim it.<sup>437</sup> Payment for a wife is in terms of male and female slaves, again in contrast to the overwhelming use of cattle for this purpose in East Africa.<sup>438</sup> The sheep, goats and chickens of the Warega are given no care; they may roam as they will, and must find their own food.<sup>439</sup> These people use no milk in any form. The dowry obtains here, as elsewhere in Africa, but the gifts given are other than animals. The money used consists of cowry-shells, but salt, iron and fabrics are similarly employed.<sup>440</sup> There is only slight division of labor,—the men work the fields with their women, but the iron-workers do no agriculture. The custom in East Africa of allotting the work in the fields to the women is seen to be different here.<sup>441</sup> The principal food of the Bushongo, in the heart of the Congo area, on the Kasai river, consists of corn and bananas. The domestic animals are dogs, which are used for hunting, and, at one time, there were goats. As among the Warega, no care is taken of these animals, nor of the chickens, but they must get their own food. A woman has her own fields, the crops of which belong to her although she must provide for her husband and children. In short, the women are held in higher regard than is common in East Africa:

La situation sociale des femmes Bushongo est remarquable. Le premier personnage du royaume est une femme, la mère du roi. Parmi les grands du royaume, les femmes sont représentées par deux personnages, et dans les conseils des anciens il y a de nombreuses femmes.<sup>442</sup>

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<sup>436</sup> Weeks, *Anth. Notes on the Bangala of the Upper Congo River*, Jour. Roy. Anth. Inst., vol. XXXIX, p. 116.

<sup>437</sup> *Ibid.*, p. 129.

<sup>438</sup> *Ibid.*, pp. 440-441.

<sup>439</sup> Delhaise, *Les Warega*, p. 53.

<sup>440</sup> *Ibid.*, p. 313.

<sup>441</sup> *Ibid.*, p. 327.

<sup>442</sup> Torday and Joyce, *Les Bushongo*, p. 11

Here, as elsewhere in the Congo, there are regular markets, a phenomenon rarely seen in the East African area. In these the cowry-shell is the medium of exchange; these are the tokens of wealth, and are given by the Mushongo to the parents of his wife as a dowry.

At the eastern edge of the Congo area, west of Lake Tanganyika, are found the Baholoholo, who call themselves the Baguha. It is of interest to note the respect in which this people differs from the cattle-keeping peoples north and east of the lake. Before the Europeans came, the chiefs had herds of cattle. These have gradually disappeared, until today there are to be found only a few goats and sheep.<sup>443</sup> Iron-workers are held in esteem, as in most of the Congo area, and agriculture is done by both men and women, the man working one more field than the greatest number worked by any of his wives.<sup>444</sup> The bride-price given at marriage is returnable if the wife be sterile or commit adultery, and if it is not returned, the man may sell his wife to recover the amount he gave for her, a custom distinctly not East African.<sup>445</sup> There would seem to be no trace of milk customs, nor any remnant of an earlier cattle-acculturation of any importance in the shape of special attention to domestic animals.

The few data presented are sufficient to demonstrate that the cattle-complex does not obtain in the Congo with respect to the cultural traits taken to show the cultural unity of the East African area. It is true that certain of the customs are similar. Thus, dowry is given to the parents of a bride by her husband, but this is a custom far from peculiar to Africa. The giving of cattle in East Africa, and of cowry-shells, hoes, and bark-cloth in the Congo, is the significant difference. There is the same legal organization, but the large number of cases involving cattle is lacking here. Wealth consists in the number of wives, or the amount of iron or shells owned, not in cattle. That the two areas cannot be considered as the same culturally, at least in the traits

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<sup>443</sup> Robert Schmitz, *Les Baholoholo*, p. 100.

<sup>444</sup> *Ibid.*, p. 107.

<sup>445</sup> *Ibid.*, p. 181.

dealt with in this essay, is patent; Frobenius' work shows the differentiation to hold for numerous other traits.

4.

To the north and northwest of the East African area lies the Sudan. The cultures of this region are bewilderingly numerous, and in its entire stretch from the Atlantic to the Red Sea, there are many differences. However, there are two principal streams of influence: that of the Mohammedan-Arabic culture from the north, and the Negro culture from the south. There will be no attempt made here, however, to delineate these various cultures. I will merely attempt to distinguish the culture of East Africa from that of the tribes of the Sudan bordering on it, and to show why they have not been classified with the peoples of the East African area. It will be remembered that at the north, the boundary was drawn at the position of the Shilluk, Dinka, Turkana, Suk, A-Kamba, and A-Kikuyu. North and northwest of the Shilluk and Dinka lie the Baggara Arabs and other tribes of Darfur and Kordofán, while to the east of these, and north of the Turkana, Suk, and A-Kamba are found the Galla, Somali and Danakil.

The Arab tribes west of the Nile exhibit distinct cultural differences from the East African tribes to their south. Tangye remarks on the variety of the cultures of this region, and the extent to which specialization is carried on:

Particular tribes, such as those of Darfur and the nomads of the Bayunda desert, specialize in camel-breeding; the latter being famous for the swift hagen; the Baggara are noted for their cattle and horses, the Dongolese for their dates; . . . .<sup>446</sup>

Here, evidently, we have something distinct from that which obtains to the south. There is the multiplication of animals; the horse appears rarely, if ever, in East Africa, yet it is so important to the Baggara that accounts of their culture usually mention the tribe for their horses.<sup>447</sup> Camels, again, are found to have

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<sup>446</sup> Tangye, *In the Torrid Sudan*, p. 8.

<sup>447</sup> MacMichael, *The Tribes of Northern and Central Kordofán*, p. 143; Gleichen, *op. cit.*, pp. 190, 217.

much of the importance ascribed to cattle in East Africa. Particularly in Darfur and Kordofán, we find this is true:

Camel-breeding is the principal pursuit of the Arabs in the north and east of Darfur, . . . the Zeiadia, Maharia and Bedaiat are the principal breeders. The Arabs who breed camels occupy themselves with no other industry and have even to buy the corn used in their households, which with camels' milk satisfies all their wants.<sup>448</sup>

The Hamar of western Kordofán were large camel-raisers, according to Pallme, writing in 1838-1839:

Camels for transport of troops were chiefly supplied by the Hamar, who at that time were the largest camel-owners of the country.<sup>449</sup>

In southern Kordofán, the Baggara, mentioned above, though they own horses, use their bulls for transporting their baggage when on the move.<sup>450</sup> Such a custom is found nowhere in East Africa.

The Kabâbîsh, an Arab nomadic tribe of northern Kordofán, will serve as an example of the life of this region. These people are the most powerful group there. They are divided into sections, and each *khasm biyut*, as these sections are termed, is under a sheikh.<sup>451</sup> As the dry season begins, each group sets out for a watering-place decided on by the leader. In this journey, the order of march is always the same: the cattle are driven first, then the camels ridden by the free women. After these are the baggage camels, while the men on their trotting-camels, superintend the movement. When the new encampment has been made, the tents stretch in straight rows along the wady, and there are zaribas for the horses. The wells are about a mile from the camp: the horses are watered every day, the goats and cows every third day, the sheep every fifth day and the few camels kept for convenience every ten days. Most of the camels, however, are sent far to the northwest to feed on the coarse grass, which remains green much longer than it does farther south. They remain there from

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<sup>448</sup> Gleichen, op. cit., p. 190.

<sup>449</sup> Quoted by MacMichael, op. cit., p. 29.

<sup>450</sup> Gleichen, op. cit., p. 179.

<sup>451</sup> C. G. and B. J. Seligman, *the Kabâbîsh, a Sudan Arab Tribe*, Harvard African Studies, vol. II, p. 112.

November until February, and are entirely without water during that period. The herdsmen subsist on camels' milk, and the little water and grain brought to them.<sup>452</sup> Blood-feuds exist, but are averted by the payment of blood-money; in theory this is one hundred camels, but it usually takes the form of about thirty oxen.<sup>453</sup> The women do little work, except in the Berara section, where there are few slaves. Here they draw water, grind durra, tend the cows and make the butter. But they never tend camels, and camels' milk is not supposed to agree with women. In the event of marriage, the "mahr," or bride-price, is disposed of differently than in East Africa. The father receives it, but it would be disgraceful if he touched it; it is turned over to the mother of the bride, who spends a part of it for her daughter's outfit, and gives the remainder to the bride. Inheritance of property is in the male line. Although men are the heirs, widows and daughters of the deceased expect a share of his property, and are usually given one or two female camels. These presents are the property of the woman; they are inherited by her children when she dies, but go to her brother if she dies childless, not to her husband.<sup>454</sup> During the dry season the Kabâbîsh subsist on a fair amount of meat. Sheep are only killed at the arrival of a guest, and camels only on important occasions, as at a wedding. A great deal of the grain needed by them is bought from neighboring tribes.<sup>455</sup> During the wet season, the kham biyut breaks up and each member goes his own way to take best advantage of the grass which springs up everywhere, and which is good for his herds.<sup>456</sup>

It is evident that the culture of these tribes north of the East African area and west of the Nile is distinctly different from that discussed in the last chapter. There is little or no agriculture; the stress is on herding, but the stock is more varied than among the cattle-keeping people, who usually have only sheep and goats besides their cattle. The camel is a real factor in this northern

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<sup>452</sup> *Ibid.*, pp. 117-120.

<sup>453</sup> *Ibid.*, p. 121.

<sup>454</sup> *Ibid.*, pp. 130-132.

<sup>455</sup> *Ibid.*, pp. 150-152.

<sup>456</sup> *Ibid.*, p. 117.

culture, and about that animal prohibitions center, while it is the one used in ceremonies.

Across the Nile, on the southern Egyptian border, there live the Ababdeh. They do not even own cattle, but raise only camels and sheep.<sup>457</sup> Far to the south, in the eastern horn of the continent, live the Galla, Somali and Danakīl. Their southern neighbors are the Masai, Suk, and Turkana, and it is not a simple matter to differentiate the culture of the most southerly Galla from the tribes treated in the preceding chapter. They are, like the Masai, principally herders. According to New, they were in direct contact with the Masai, who continually raided them in order to take their cattle.<sup>458</sup> They are a purely pastoral people, and what vegetable food they eat is obtained from neighboring peoples. They delight in fresh blood, and drink it mixed with milk. They use butter for anointing themselves.<sup>459</sup> There does not seem to be any taboo with regard to the contact of women with cattle: they

milk the cows and sometimes help with the herding, and make butter, as well as manufacturing and cleaning the milk-vessels.<sup>460</sup>

They regard milking as distinctly the work of women, although natives are quoted as remarking " . . . it may, on occasion, be done by men."<sup>461</sup> It must be remembered that these are the most southerly Galla, and as one proceeds northward the picture changes. There is additional emphasis on agriculture; Miss Werner remarks that the Abyssinian Galla differ so much from the southern Galla that it would be difficult to treat of them as one.

. . . to begin with, they are an agricultural people, which at once alters the whole aspect of their culture, and . . . they have been perceptibly influenced by their Abyssinian surroundings.<sup>462</sup>

Paulitschke says

Der Nordosten des afrikanischen Osthornes gehört den Nomaden, der Südwesten den Ansässigen. Der Südosten wird von Semi-Nomaden bewohnt.

<sup>457</sup> Klunzinger, Upper Egypt, p. 259.

<sup>458</sup> New, *Life in East Africa*, pp. 202 ff.

<sup>459</sup> *Ibid.*, p. 72.

<sup>460</sup> Werner, *The Galla of the East African Protectorate*, Jour. Af. Soc., vol. XIII p. 136.

<sup>461</sup> *Ibid.*, p. 130.

<sup>462</sup> *Ibid.*, p. 133.



die im Allgemeinen bei nassem Wetter westwärts zu ziehen pflegen, bei trockenem dann wieder gegen Osten oscilliren . . . .<sup>463</sup>

It seems to him that the Galla were first herders and later agriculturalists, and that the Somal tribes of Girri and Bertirri east of Harar are changing from shepherds to settled farmers, while there seem to be two types of Galla cultures, the herding with patriarchal institutions, and the agricultural with developed governmental institutions.<sup>464</sup>

In this Eastern Horn we find a multiplicity of domestic animals not to be seen farther south. Among the Somali and 'Afar there are sheep, goats, cattle, camels, donkeys, and horses, besides dogs, cats, and ostriches. The Oromo (Galla) have cattle, sheep, camels, donkeys, mules, goats, and pigs, as well as civet- and house-cats, and dogs.

Seiner Bedeutung nach steht beiden Nomaden in erster Linie das Kamel, dann folgt das Schaf, Pferd und Rind; beiden Sesshaften hinwider nimmt den ersten Rang das Rind ein, und diesen folgt zunächst das Maulthier, das Pferd und der Esel.<sup>465</sup>

The keeping of camels is important in all the territory of the Danakil and Somali as far as the marshy swamps of Webi Shabeli, which make it impossible to maintain them. The Somali camel is used for transportation and also valued for its milk. One sees herds of hundreds of them, watched by women. They are not ridden, but are kept for their milk, which is drunk sweet, and for their flesh, which is prized.<sup>466</sup> As has been noted, the more southerly Galla approach the East African tribes in their love for the cow. "Eine grosse Rinderheerde ist der Stolz des Oromó" is a remark made again and again about East African tribes also.<sup>467</sup> The horse is found among most of the Somali tribes as far south as Lake Rudolph. It, again, is an animal not seen farther to the south. The 'Afar have a few,—their country is that of the camel and the sheep. The ass is found in the entire East Horn, being

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<sup>463</sup> Paulitschke, *Ethnographie Nordost-Afrikas*, vol. I, p. 210.

<sup>464</sup> *Ibid.*, vol. I, pp. 210-212.

<sup>465</sup> *Ibid.*, vol. I, p. 223.

<sup>466</sup> *Ibid.*, vol. I, pp. 223-224.

<sup>467</sup> *Ibid.*, p. 226.

used by the Galla as a pack-animal.<sup>468</sup> The pig is found only among the Galla; since Islam does not countenance it, it stops at the southern limit of Mohammedanism. Here, as elsewhere, the bridegroom must give dowry for his bride. The western Somali and 'Afar give from ten to one hundred and fifty female camels in milk, ten to one hundred horses, and two to three hundred sheep; the poorer man gives only ten to twenty goats. The Galla farther to the south give from six to eighty cows.<sup>469</sup> At marriage, the father gives his daughter a present amounting to several cows and goats, so that she will always have food.<sup>470</sup> As is so often found to be the case in pastoral family, "le systeme d'heritage chez les Oromo se base sur le droit absolu de l'ainé."<sup>471</sup> He must, however, provide for his younger brothers and take care of his sisters, who, however, inherit nothing. Among the Mijjertheyn Somali the bride-price was paid in thalers,—one hundred and fifty was often the amount.<sup>472</sup> These Somali are divided into two groups, the townspeople and the Bedouins. The wealth of the latter is in camels, horses and sheep, and they gather mountain gums, selling them to the townspeople. They live almost entirely on milk, and are all Mohammedans.

It is interesting to notice the gradual change in the culture of the people north from Lake Rudolph. Slightly south of this lake, we find the Masai, the Suk, and the Turkana, all tribes in which the cattle complex operates at its highest. Almost all the elements of the complex are found in the southern Galla: the responsibility of the women toward the cattle is slightly stressed, but that is all. As we proceed to the north and east, other animals are introduced, and the culture takes on more and more, on the one hand, the elements of that of a desert nomadic people, or, among the Abyssinian Galla, those of an agricultural people. There have been mentioned the Ababdeh, much farther to the north, who have no cattle at all, but only camels and sheep. Between the extremes of

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<sup>468</sup> *Ibid.*, p. 228.

<sup>469</sup> *Ibid.*, pp. 196-197.

<sup>470</sup> de Salviac, *Les Galla*, p. 214.

<sup>471</sup> *Ibid.*, p. 236.

<sup>472</sup> Crittenden, *Notes on the Mijjertheyn Somalees*, *Jour. Asiatic Soc. of Bengal*, vol. xiii, part 1, pp. 319-335; Paulitschke places the price as high as a thousand thalers.

this tribe and of the Masai, there is a gradual shading. It is a striking demonstration of the shading which takes place in cultural traits as we pass from one area to another when there is no strongly prohibiting environmental factor, as there is on the western border of the East African area, between it and the Congo.

#### IV

The cattle complex of East Africa includes a number of definite traits confined, more or less, to the territory comprised in the area described. If found outside the area, they are usually seen in a setting different from that of East Africa. Reviewing these traits, we find as the outstanding one the existence of cattle. These animals are found in all the area, and if less frequent in some places it will be found that those which are present exert an influence greater in proportion to their numbers. Thus the Wagirama have not many cattle, yet the dowry always includes cattle, and these are the animals slaughtered at ceremonies. In all of East Africa, cattle constitute wealth. A man may have iron, produce from his fields, sheep and goats, implements of all kinds, but unless he has cattle, his wealth amounts to nothing. On the other hand, the man who has position in his community is he who owns the largest herds, and most of the incentive to raiding or other means of acquisition of these animals is simply the urge for power and prestige.

At birth, in death, and at marriage, cattle are present, customs connected with them are usually in evidence. In the south, the newly-born child carried a necklace of several hairs from the tail of a special cow for a good-luck charm, while in the north it is the rope used to tie the feet of restless cattle at milking-time which binds the waist of the new mother. The custom of burying the dead in the skin of a cow or of an ox is ubiquitous in the area. In several tribes special oxen are kept to be killed at the death of their owner, while the funerary feast consists of the flesh of cattle wherever the estate of the deceased person is sufficient to afford this. The only acceptable dowry, in the overwhelming number of cases, consists of cattle, and their passage determines the family to which the children born of the match belong. In divorce, the

principal question is usually the disposal of the dowry-cattle, whether they are to be returned to the husband or remain with the father of the wife. Finally, it is because of these important customs that an appreciable portion of the work of the judicial bodies is concerned with cases involving cattle.

It is on this cultural fact, then, that the grouping of the tribes of this region is based. Such a grouping has been termed a culture-area, and, as pointed out above, has been made for America, but for no other continent. It is a concept which has owed its inception and development to the fact that specimens of material culture tend to fall into well-defined groups, and that museum methods have shaped this tendency to place similar objects together. It is interesting to see the extent to which these non-material elements of culture follow the same rules, and to consider the principles which should underlie this culture-area concept. It seems that the culture-area is based empirically on the outstanding elements in the cultures of a given region. Thus, in America, the tribes inhabiting the Plains area are hunting peoples; their weapons, habitations, means of getting a living, and the like, are based on this fact, and their cultures therefore resemble each other to a much greater degree than they do those of the Southwest, inhabited by peoples whose culture is basically agricultural. From the survey just made the same is true of Africa. The basis of wealth is cattle, which supply an appreciable portion of the food of the East African tribes, and constitute one of the most noticeable elements in their culture. The presence of these animals differentiates Eastern peoples from those who have no cattle, and, on the other hand, from those who have cattle and additional animals.

The culture of East Africa gives the impression of having an agricultural foundation, on which the cattle complex seems to have been superimposed. There is no tribe in which some agriculture is not performed; though in the north the dominant groups do not work the ground, they feel dependent upon the subordinate elements of the population for their vegetable food. It has not been possible for the writer to obtain a zoological classification of African cattle, but two types are easily distinguishable. In the

extreme south; among the Hottentot, Zulu, and other peoples south of the Zambesi, and in the north among the Galla of Abyssinia, the tribes of the Egyptian Sudan and to the west, there are to be found the large, straight-horned variety. Between these two widely separated regions, we find the smaller, humped, short-horned cattle, such as were raised in ancient Egypt. It has been claimed that this is the type found in India,—if this be true, the conclusion would be tempting that the cattle of Africa were derived from the north, and that they were introduced into this agricultural society in prehistoric days. This, however, presents difficulties, for it leaves the other type of cattle to be accounted for. If it be argued that they are indigenous, then they must have spread from the north to the south or from south to north. In either case, it is strange that there is the wide gap in their distribution. A third possibility, that they originated in the center of the eastern portion of the continent and diffused in both directions is logically conceivable but most unlikely, for it is in the central area between the two outlying regions that the cattle-complex is found to be weakest. This might, however, be accounted for by climatic change over a long period of time. Another suggestion is that this type of cattle might be a mutation of the dew-lap variety. But considering the extreme improbability that the same variation should happen twice in the comparatively short time cattle could have been in Africa, this must also be rejected. And although a single occurrence of the mutation is quite possible, this again leaves the problem of the gaps in distribution of the straight-horned cattle in as perplexing a state as before. Perhaps the most that may be said is that the evidence from contemporary peoples suggests that cattle were introduced in a civilization already in full possession of agricultural technique.

But it is the cattle that have become the dominant element in the cultures of these peoples. Yet, in the determination of a culture-area, the presence of the dominant trait is not everything. It is the extent to which this trait has gathered about it a complex of other traits which makes possible the mapping of an area. It may be said that there are no elements of culture which are found among one people only; it may similarly be said that there is no

element which does not affect some other element in the culture of which it is a part. It is these outstanding traits that seem to affect most deeply the other traits composing the entire culture. This stands out very clearly in Wissler's study of the spread of the horse in North America. There was a definite horse complex, which carried with it the saddle, the knowledge of the care of the horse, and other elements. The spread of this trait through the plains was rapid, and it affected other elements of culture. The travois, e.g., which had been used with the dog, was immediately transferred to the horse. Another example of this is found in the spread of tobacco in Africa. Introduced in historical times, it diffused with amazing rapidity throughout the continent, and such arts as pottery-making and wood-carving responding to it, as any collection of pipes from Africa will demonstrate. The same is true of cattle, though to a greater degree. They gathered about them these other elements of the complex, until we can recognize it wherever it may be found. Cattle as wealth, cattle as the only acceptable dowry, cattle as the proper animals to be used in ceremonies or at special feasts, cattle associated with distinct sex or occupational taboos, special milk customs,—these all have distributions which are very similar. It is not enough that cattle be found in East Africa to constitute it an area; before the region may be distinguished there must be a series of traits, all of which taken together have a similar distribution, and which show an inter-relation.

This does not mean, however, that the individual traits which comprise the complex are fixed, as the Graebnerian school would have us believe. Indeed, the capriciousness of many of them is apparent, and their distribution cannot be observed without remarking this character. Taking the major element of the cattle complex, the cattle themselves, we find that they are found throughout the Sudan, the south of the continent, and on the west coast, as well as in East Africa. But it does not follow that all these regions are culturally comparable. In the Sudan, for example, cattle are subordinate to other animals, such as the camel or the horse. Among the Hottentot, they dominate life to so much greater an extent than in East Africa that the two

cultures appear to be greatly different. Agriculture, not an element in the cattle complex except through its subordination to herding where cattle are found, is distributed all over Africa except in the territory of the Hottentot and Bushmen, and those northern desert regions where climatic conditions make it impossible. But while agriculture is the dominant element in the economic life of the Congo, we do not find this to be the case in East Africa. Again, the custom of giving dowry for one's wife is found all over Africa, to say nothing of other continents. But while in East Africa cattle are given and strict rules hold as to their disposal in the event of divorce or the wife's barrenness, we see in the Sudan that the dowry principally takes the form of camels. Nor is the disposal the same,—it is a disgrace for the father of the bride in this latter region to keep any of the dowry for himself. In the Congo area, cowry-shells and iron hoes are given the girl's father by her prospective husband, while in the south of the continent, among the Hottentot and Bushmen, little or nothing is given. Again in the case of inheritance, it is cattle which form the major portion of the estate in East Africa. This is not true in other regions. So one might detail the list of traits which distinguish East Africa, and plot differing distributions for each of them; it is their being all found together just in this region which is of significance.

There may be no correlation between the territory of the culture-area and the distribution of traits found there which are not included in the dominating complex. An area plotted on the basis of the cattle complex will give vastly different results from one plotted on that of political organization, for example. Among the Baganda, the Bahima and Banyoro, we find political organization which points strongly toward the Congo; the separate courts of the king, queen and queen-mother, the hierarchy of nobility and priesthood, and all the vast machinery of a constituted government over a large area, the counterparts of which one can find among the Bushongo of the Kasai river region, in the heart of the Congo area. Language is another cultural trait which seems to be completely independent of other aspects of culture. It cannot be denied, of course, that the cattle complex exerts a slight

influence over language in East Africa, but only to the extent to which language must be a means of expressing the daily life of the people who use it. It is to be expected that we find among cattle-owning tribes, the large number of words used to describe cattle to the minutest detail, or that among the Suk, e.g., there is a separate stem for a milk calabash as distinguished from an ordinary one. But language as such is quite without any bounds of culture-areas. In the larger portion of East Africa, Bantu is spoken. But to the north, there is also found the so-called "Nilotic" group of languages—Nandi, Suk, Masai, Silluk, and others. In the very heart of the East African region, apparently quite isolated, there is found a language which has all the clicks of Hottentot, and is spoken by the Sandawe. Yet these people, living south of the Masai, exhibit the cattle complex,—they have cattle, drink their milk soured, and use the blood of their animals, much as do their neighbors. There is apparently no relation between the language of these areas and their cultures;—another example of this is manifest in the fact that the language of the Congo, Bantu, is that of most of East Africa.

It cannot be imagined, after the foregoing exposition, that the transition from one culture-area to another need be abrupt. In the general nature of things, this is not the case. An example of the way in which one culture may shade into another has been remarked in the last chapter. It will be remembered that the southern Galla resemble the Masai in many respects, almost in all of those constituting the cattle-complex. The placing of the boundary is indeed a most difficult matter here, and it is only the fact that exact transition-points between the southern and northerly Galla are so difficult to establish that has led to the exclusion of the southern Galla from the East-African area. We find a gentle transition from the cattle-culture to a camel- or an agricultural-cattle-camel-culture. The situation is otherwise in the case of the dividing-line between the Congo and East Africa. There can be no doubt where this line should lie; it follows the water-shed of the Congo with startling faithfulness. This brings us to another point in the consideration of the causes of this grouping of cultural traits: the influence of the environmental



element. If a map of the annual mean rainfall of Africa be consulted<sup>473</sup> it will be noticed that the line bounding the area in which sixty inches of rainfall a year follows closely this northwestern boundary of the East African area. It has been pointed out that this is also the northeastern watershed between the Congo and Nile rivers, yet there is no abrupt change in the configuration of the land. This amount of rainfall, however, determines the forest-belt within which cattle do not thrive, and in which the most luxuriant vegetation abounds. It is also of interest that there is a slight extension of this area to Uganda, where it has been found that the cattle complex is merged with many elements of the Congo culture, such as the prominence of the bark-cloth and the cowry-shell. Further, the weakness of the cattle-complex in the narrow central portion of the East African area is undoubtedly determined by the fact that this region contains districts in which the tse-tse fly abounds. It is not maintained that this environmental fact of rainfall, e.g., determines the culture of the Congo or of East Africa, or the variations which occur in Uganda. But here we evidently have a demonstration of the rôle of environment as a limiting factor to the spread of culture, for, if cattle cannot be maintained beyond a certain point, there is no opportunity for a cattle culture to develop.

It is well to consider the point of most intense development of the culture of the area which has been denoted. If the center of a culture-area is that in which the greatest number of manifestations of a given culture are seen, then the region about Lake Victoria Nyanza, excluding Uganda, must be selected. Among the Zulu and Kaffir tribes in the south we find that the cattle complex manifests itself almost as prominently. But the complete absorption in cattle distinctive of the northern region, seen in such matters as the appointment of a chief to rule over a given number of cattle rather than of people, in the elaborate cattle rituals which surround the chief, in the time given to herding as against that devoted to anything else, leads one to place the center there. It must not be assumed that the culture-center is an historical

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<sup>473</sup> Knox, *The Climate of the Continent of Africa*, Plate 1.

concept, for it is not claimed that the diffusion either of the cattle themselves or of cattle traits took place from this region. But that there is the most complete cattle-culturation here, must be apparent from the material adduced.

We may then come to the conclusion that a culture-area is an empirical grouping of tribes which manifest similar cultures; that, being descriptive, it is a picture which does not necessarily include time-depth; that its boundaries are not fixed, but that there is a shading from the culture of one area to that of the next, geographical conditions permitting; that the complex of traits which compose the culture of an area are distributed, in the main, throughout that area, and that the area comprises the region in which they are to be found in similar cultural settings; that the elements of these complexes are not invariably fixed, but may have individual distributions; and that, finally, the significance of the traits in the complex of an area are the same to the inhabitants of that area. In the light of this concept of the culture-area, the distribution of the cattle complex in East Africa demonstrates its applicability to African cultures, and points the way to delineation of other areas which have not as yet been denoted.

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ANTHROPOLOGY AT THE COLUMBUS MEETING  
OF THE CENTRAL SECTION  
OF THE AMERICAN  
ANTHROPOLOGICAL ASSOCIATION

The Fifth Annual Meeting of the Central Section of the American Anthropological Association was convened in the Audience room of the Museum of the Ohio Archaeological and Historical Society, Columbus, Ohio, at 10:15 A. M. Friday, May 14, 1926. President Chas. E. Brown, Chief of the State Museum of Madison, Wisconsin, was in the chair.

A. C. Johnson, President of the Ohio Archaeological and Historical Society extended the welcome in a cordial, though brief, address. President Brown responded for the Section, following with his annual report. Three Committees were appointed by the President: an Auditing Committee with H. C. Shetrone of Columbus, Ohio, Chairman, and Dr. Geo. L. Collie of Beloit, Wisconsin and Dr. W. B. Hinsdale, Ann Arbor, Michigan as members; a Nominating Committee with Dr. W. C. Mills, Columbus, Ohio, Chairman, and P. E. Cox, Franklin, Tennessee and Dr. Ellsworth Faris, Chicago, Illinois, members; and a Committee on Resolutions with Dr. Fay-Cooper Cole, Chicago, Ill., Chairman and Dr. Chas. R. Keyes, Mt. Vernon, Iowa, Dr. J. E. Pearce, Austin, Texas, and Dr. Carl E. Guthe, Ann Arbor, Michigan, members.

The opening of the program for the morning consisted of five minute reports on "Anthropology and Archaeology in Institutions of Higher Learning." Dr. Fay-Cooper Cole spoke for the University of Chicago, Dr. Carl E. Guthe, for the University of Michigan, Dr. W. C. Mills for the Ohio State University, Dr. G. L. Collie for Beloit College, Dr. J. E. Pearce for the University of Texas, Chas. E. Brown for the University of Wisconsin, P. E. Cox for Tennessee, Miss Anna O. Shepard for the Nebraska State University, and Dr. E. Faris added information for the University of Chicago.

The reports brought out the diversity of the teaching of Anthropology in the various institutions. Some open classes for the undergraduate body; others only for graduate classes; still others with a chair in Anthropology have no classes but do only research work. The amount of credit given for work varies greatly. In one

institution until recently no credits were given for work in classes in Anthropology. The sizes of classes varied from 30 to as high as 500 students receiving such instruction. The consensus of the reports showed a greatly increased interest in Anthropology both among the students and the public at large, and more attention being given in all colleges with new courses being opened at present in several.

H. R. Goodwin of the Ohio State Museum spoke on the "Adaptation of the Hopewell-Culture Mound Designs to Present-Day Artistic Utilization." He said it was no new thing for designers of textiles to visit museums in the hope of finding among the collections, motifs for novel and original patterns. Having had experience in designing, on entering museum work at the Ohio State Museum, Mr. Goodwin was attracted by the art of the Mound Builder, from which he endeavored to produce designs adapted to use for carpets, rugs, draperies, pottery, etc. He made no attempt to trace the origin of the highly conventionalized forms found among the articles brought to light by the explorations of the Ohio Archaeological and Historical Society nor to suggest a possible symbolism but showed the possibilities of certain selected units from the art of these prehistoric peoples which, with harmonious color arrangement, produced attractive designs. In this, while the original motif is relegated to second place by the coloring, still the Mound-Builder motif is the base of the pattern. Mr. Goodwin exhibited a large number of colored designs which illustrated the breadth of form allowed, and the value of the units from the Mound-Builder art.

Dr. Carl E. Guthe, of the Museum of Anthropology, University of Michigan, at Ann Arbor, spoke on "Some Notes on Pottery Classification." He showed the great need at the present of a universally accepted basis for classification, one to be used by all workers. Dr. Guthe made this under five heads, which, with agreed definitions, would make more understandable all pottery, especially primitive and prehistoric. Under "Construction" he included: how made, whether on a wheel, by coiling, dabbing, or casting. Under "Paste": the color of the material, the nature of the material, and whether hard or soft. "Finish" should include: whether or not the ware was untouched after making, smoothed, polished, painted or decorated with slips. Under "Decoration" he included heads of Plain, Incised, Pressed, Painted, or Added Clay. Under fifth place, "Shape" is found the greatest need for definition as to: form, lip, neck, base, bottom, etc., the points to be used in making measurements.

Prof. J. E. Pearce of the University of Texas at Austin, exhibited a series of objects which he described in his paper, "Some Unique Stone Artifacts of Texas." Some forms are confined to the Texas area. He described finds in caves and rock-shelters. Dr. Pearce said pottery was not found in western Texas, and only in comminuted pieces in eastern Texas.

Noon luncheon was tendered the members at the Union Building on the Campus, through the courtesy of the Ohio State Archaeological and Historical Society.

The afternoon session was called to order at two o'clock by President Brown. P. E. Cox, State Archaeologist from Franklin, Tennessee, read a paper on the "Discovery of Primitive Man in the Caves of Tennessee." He described the caves, the magnitude of the inhabited areas and the fields adjacent used for primitive food production; and told of the grave finds near the caves as well as on the platforms before them. He assigned great antiquity to the culture of these cave people.

Dr. A. V. Kidder, Secretary of the American Anthropological Association, Andover, Massachusetts, spoke on "Basic Problems of New World Archaeology." He told of the culture being agricultural at the base, essentially "Corn Culture." He entered briefly into the problems of whence came the Amerind, when, and his place in the social scale on his arrival. He also told something of work being done in this field.

B. F. Greenman of the Museum of Zoology, University of Michigan, Ann Arbor, described his finds while excavating "Michigan Mounds with Special Reference to Two in Missaukee County." Apparently two cultural types were represented in the two mounds.

Geo. R. Fox, Director of the E. K. Warren Foundation, Three Oaks, Michigan, talked on "Shell-Mound Builders," with special reference to a cemetery he had excavated on Perico Island, Florida. He exhibited skulls and other bones. Attention was called to the enormous extent both as to country covered and the extent of the shellmounds themselves; and the problem of the time required for their formation was presented. The finds made in a sandmound by J. W. Fewkes on Weeden Island, Florida, were referred to in relation to the find on Perico Island, where the bones were found likewise in sand, but in the level island floor instead of a small dune. The Perico Island cemetery is of unknown extent. Two known plots have been excavated. In the one described, thirteen skulls

were found. No complete skeletons were unearthed; all bones were disarticulated, apparently before burial. Interment was in shells, a base of fulger shells having been laid down, then the bones placed at random and in all conceivable positions, and more fulger shells placed in and about the skulls and bones. Two femurs were shown with lesions presumably of syphilitic origin.

Dr. W. B. Hinsdale, Curator of Michigan Archaeology at the Museum of Zoology, University of Michigan, delivered an illustrated talk on "Navigating the Inland Waters of Michigan with the Indians." The waterways of Michigan were one of the Indians' principal highways in that state and Dr. Hinsdale showed, by means of many maps, how the Indians of early days found it possible to go entirely across the Lower Peninsula with but very short portages, sometimes without any. The old maps of the French regime and the early maps of the American occupation, had indicated these old water trails, and the main land trails followed by the redman through Michigan.

Dr. Geo. L. Collie, of Beloit College, Beloit, Wisconsin for the past season has been conducting excavations in a cave in France. His paper on "Upper Magdalenian Culture as revealed by specimens taken from the Logan Museum site at Les Eyzies, France" gave the results of this work. He brought with him a large number of specimens which were exhibited and explained.

Dr. Chas. R. Keyes, State Archaeologist of Iowa, spoke on the "Iowa Pottery Complex." He pointed out the various types known in the state, where found and told of their relations to types found in other cultural areas. Dr. Keyes located the Hopewell type in eastern and southeastern Iowa. Slides were used to point his conclusions.

"Wisconsin Indian Harpoon Points" was the title of the paper presented by Chas. E. Brown, Chief of Museum, State Historical Society, Madison, Wisconsin. Specimens of the various implements of this class used in the state were displayed, ranging from bone through copper, to the trade harpoon of iron.

Through the courtesy of Pres. A. C. Johnson of the Ohio Archaeological and Historical Society the Section was entertained at supper.

The evening session was opened by a talk on the "Hopewell Culture," illustrated by slides. H. C. Shetrone, Curator of Ohio Archaeology, State Museum, Columbus, gave the address. The remarkable ability along artistic lines of these unknown peoples was

shown by examples of work found at the various sites of this culture excavated in the state.

A round-table discussion of archaeology and the state surveys was led by Dr. A. V. Kidder, who told what was being done along these lines, and of the National Research Council's desire to render assistance. On requests for suggestions Dr. C. R. Keyes favored personal visits of a representative of the committee to the backward states to advise and inspire.

The round table discussion of Anthropology was led by Dr. Fay-Cooper Cole who spoke on its needs and the work being undertaken along anthropological lines.

The Saturday morning meeting was called to order at 9:15 for the business session. Under a motion made by Dr. Keyes the reading of the minutes was dispensed with. The Secretary's report showed fifty-nine members at the time of the 1925 annual meeting. Since that time five active and two associate members have been dropped for non-payment of dues, one has died, and two active and one associate have resigned, a total loss of eleven. To the forty-eight still on the rolls eleven new active members have been added, three associate members joined, and ten transferred to the Central Section, a total of twenty-four, making the membership at the time of the meeting, seventy-two. On motion of Dr. Cole, seconded by Dr. Mills, the report was adopted.

The Treasurer's Report showed cash on deposit May 14, as \$260.69 against which were checks outstanding of \$108.02, leaving \$142.67 in the Society's treasury.

Cash at the 1925 meeting, \$121.60. Central Section's receipts since have been the dues of fifty members, \$50.00, and a gift Dr. Otto L. Schmidt of Chicago, \$25.00. Total receipts, \$75.00. \$196.60 is the total for 1925-26. The expenses of the section have been dues to the national association included in the 1925 report, \$25.00, printing \$19.50, telegram 90 cents, and stamps \$8.62; a total of \$54.02, leaving a balance of \$142.58. The Auditing Committee reported that they had audited the accounts and found the report correct. On motion of Chairman Shetrone, the report was adopted.

P. E. Cox of Tennessee submitted a resolution which was adopted after some discussion.

"Be it resolved (1) that the Central Section of the American Anthropological Association appreciates the request of the National Research Council communicated by Dr. A. V. Kidder, soliciting suggestions.

(2) that the President appoint a Committee of three members of the American Anthropological Association to be called the National Research Council Committee.

(3) that upon application being made to the Central Section of the American Anthropological Association by any state or reputable scientific organization seeking the assistance of the National Research Council, the Secretary of the Central Section will refer such request to the chairman of this committee who will submit the same to the Committee and if the Committee approve, the Chairman will submit such request with full explanation to the National Research Council for action, requesting that the Chairman of this Committee be notified of the action of the National Research Council. The Chairman will then notify the applicant.

(4) that the American Anthropological Association (Central Section) keep in close touch with the National Research Council, and communicate any information received from the National Research Council to the members of the Central Section.

(5) that the Secretary of the Central Section give the press information of this resolution, requesting its publication."

The Central Section received invitations to hold its annual meeting for 1927 in two cities. Dr. E. Faris invited the Section to come to Chicago and P. E. Cox invited it to come to Nashville. On a rollcall, the Section selected Chicago as the place for the next meeting.

The report of the Nominating Committee was read. The nominations were President, Dr. Chas. R. Keyes; First Vice-President, Dr. Fay-Cooper Cole; Second Vice-President, Dr. G. L. Collie; Secretary and Treasurer, Geo. R. Fox. The five members who with officers make up the Executive Committee were nominated as Dr. Ellsworth Faris, H. C. Shetrone, C. E. Brown, Prof. J. S. Pearce, and Dr. Carl E. Guthe. No further nominations were received and on motion of Dr. Mills, seconded by P. E. Cox, the recommendations of the Nominating Committee were approved; under suspension of the rules, on a motion by Blackburn, seconded by Mills, they were declared regularly elected.

Dr. Fay-Cooper Cole, Chairman of the Resolutions Committee, reported two resolutions:

"Resolved that we desire to express to the Ohio State Archaeological and Historical Society our hearty appreciation of the fine arrangements made for our reception in the classic center of Ameri-

can archaeology, and for the generous hospitality shown both in connection with the program carried out in the Society's great Columbus Museum, and in connection with the field trip to Fort Ancient, the Serpent Mound, and other major Ohio antiquities. We shall remember with especial pleasure the fine contributions of President Arthur C. Johnson, Director Wm. C. Mills, and Curator H. C. Shetrone."

"Resolved that in the death of Mr. Alanson Skinner the American Anthropological Association, Central Section, has lost an honored friend and an able investigator. His great enthusiasm and wide experience made his work of unusual value, and we feel that science has suffered an irreparable loss in his untimely death."

Dr. Ellsworth Faris, of the University of Chicago, had the first paper of the Morning, "A Restatement of the Problem of Diffusion vs. Independent Origin." Dr. Faris deplored the two schools which have arisen around this problem of Anthropology. He contended that the adoption of one or the other of the schools by scientific investigators had produced controversy, and wasted effort. He suggested that inasmuch as the problem of diffusion is the problem of connecting, wherever possible, similar products of human culture, the isolated cases of independent origin be ignored. He drew the distinction between technique and culture, the former diffusing promptly, the latter, because emotional and often-times religious, being more resistant to attack, much more slowly. The study of diffusion, an undeniable phenomenon, promises rich results. Independent origin, which may occur, promises nothing fruitful in a study of its examples. A study of the small number of so-called instances of independent origin, leave the student with a collection of curiosities and no more knowledge about human nature than when he began, for if the elements are really the same it is hardly possible to be dogmatically sure that they are not connected.

Dr. Fay-Cooper Cole, in "Contribution of Anthropology to the Study of the Alien Problem," showed that until the mind of the immigrant, his customs, and his habits were studied and an approach to an understanding of his psychology achieved, no real solution to the alien problem could be suggested.

Miss Ruth Shonle of Chicago University read her paper on "Suicide among Preliterate People." She showed that in nearly all cultural states, suicide occurs, mentioning the Australian, the Negrito and the Bushman as apparently being exempt. She classified



suicides among the preliterate as of two main classes, that in which personal reasons, as fear, love, hate, despondency, and the like induce self-destruction; and the institutional or that in which the group psychology determines suicide, either by direct decision or in response to custom, as, for example, the suttee.

In "An Anthropological Approach to the Study of Human Dentition," Wilton M. Krogman of the University of Chicago said that the problem of the occlusion or contact of the teeth and its relation to malnutrition (or nutrition) is one that is confronting the dental world. Students have definitely proved that where babies have been fed artificially, i. e., bottle-fed, there is a definite trend toward malocclusion of the teeth. Mr. Krogman undertook to study the dentition of a series of 317 Melanesian skulls, representing individuals who had been naturally fed—breast fed—in infancy. The result demonstrated that breast-feeding plays an important part in the development of the teeth, for whereas in the case of bottle-feeding 80% of the individuals thus fed had malocclusion, in the cases of breast-feeding 79.6% had normal occlusion. The situation is thus exactly reversed.

After a luncheon given by the Ohio Archaeological and Historical Society, the Central Section members to the number of fifty, started in automobiles for Fort Ancient. The old fort was reached about three o'clock. After an inspection of various parts of the site, Warren K. Moorehead, who made extensive explorations many years ago, gave a short talk on its antiquity.

The night was spent in Winchester. Next morning with an early start the members of the Section reached the Serpent Mound Park an hour before noon. The sinuous curves of the great mound were viewed and much speculation indulged in. Dr. A. V. Kidder was called upon to tell something of the mound, but contented himself with discussing the agricultural basis of the prehistoric culture of America. He told of the indebtedness of mankind to the skill of the aboriginal man in America in domesticating such a large number of valuable food and other plants, without which civilization now would find it difficult to exist.

A picnic lunch was served by the ladies of the party, and the trip was resumed toward the Seip Mound. The work at this mound, about one-third done, was explained by H. C. Shetrone under whose direction it was undertaken. A visit to Mound City Park just north of Chillicothe disclosed the plans of the Ohio Archaeological Society

for its restoration. The work already is well under way. On the way back to Columbus the Logan Elm was visited.

Such spare time as the members could secure between sessions, in Columbus, was spent by practically all, in studying the very fine collection of articles in the Museum; the artifacts were obtained from the exploratory work the Ohio Archaeological and Historical Society. Dr. Mills, Curator Shetrone, and Registrar Goodwin devoted a large portion of their time to explaining the collections.

GEORGE R. FOX,  
*Secretary*

## ANTHROPOLOGICAL SOCIETY OF WASHINGTON

At the 591st meeting of the Society, held on October 20, 1925 in the new National Museum, Dr. John M. Cooper read a paper on "The Têtes de Boule of the Upper St. Maurice," basing his remarks on two visits to them, one in 1916 and the other in June of this year.

They are a hunting and trapping people who occupy most of the water-shed of the St. Maurice River in Quebec, the northern band straddling at points the Hudson Bay divide. Some of the anthropometrical averages obtained for adult men were: stature, 168.6; cephalic index, 80.67; face breadth, 147.4. The linguistic material gathered seems to show quite clearly that the language spoken is a Cree dialect. The Têtes de Boule thus appear as the easternmost Cree. The chief phonetic change is Tête de Boule *r* for common Cree *y*. The northern band of the Têtes de Boule call themselves Obidjiwan *iriniwāk*, "men of Obidjiwan."

They have the typical northeastern family hunting grounds, with inheritance usually in the male line and with use of selection and rotation for conserving the game supply. Marriage is usually patrilocal. Women are well treated. No trace of sib organization or of totemic tendencies was found. The chief has very limited power. There are two assistant chiefs. The chieftaincy is not necessarily hereditary, but actually tends to pass from father to son. Among the adolescent boys and girls, chums are common, but no indication of the gang appeared. Baskets are decorated with spruce root, but the double-curve motive, quill and moose hair ornamentation, and bark etching are absent. Psychically the Têtes de Boule are characterized by evenness of temper, good humor, truthfulness, and honesty, and socially by marked peacefulness and democratic spirit. The social atmosphere and organization is distinctly non-competitive, even competitive play being seemingly absent.

The 592nd meeting of the Society was held on November 17, 1925, at the United States National Museum. Dr. Aleš Hrdlička addressed a crowded hall on "Ancient Man in the Far East." He had just returned from a round-the-world trip made to study at first hand some of the crucial evidence on primitive man of the past and

present. He dealt more particularly with the Rhodesian skull. As a result of his research and observation at the Broken Hill mine, he has been able to clear up many of the uncertainties that have surrounded the discovery of this remarkable specimen.

It was found by a miner near the lower end of an old bone- and detritus-filled cave that sloped down from the former surface. The upper part of the cave was largely filled with a great quantity of animal bones, among them a few human remains, and some stone artifacts. The long bones, including the human ones, had been broken or split to extract the marrow. Beyond this part of the cave was a stratum, thirty feet thick, of laminated soft lead ore, separating the anterior from the lower posterior section of the cave. The skull of Rhodesian man was found in the lower section, at a depth of 60 feet from the surface. It was not associated with other bones, but not far from it was found a human tibia and a fossil skull of a lion. The bones brought with the skull to England, aside from the tibia, may not belong to the lower part of the cave. These remains are from both male and female skeletons, show varying alteration, and clearly do not belong with the skull. The skull itself was found resting upright and intact, without the lower jaw, in a pocket of detritus and "bat" bones, as if put there intentionally. It showed originally no scratches or damage. Below it was found what looked to the discoverers like a roll of mineralized thick hide, and still lower and at some distance the human tibia and lion's skull. The last has apparently disappeared since the discovery. The roll may have been laminated lead ore. It was smelted, as was the mass of mineralized bones from the outer part of the cave.

How the skull came to be in such a place at the base of the cave, and who may have put it there, are questions which may never be answered. Nor is it possible at present definitely to classify Rhodesian man among any of the human races of the past or present. The find will probably remain a great anthropological enigma until further evidence bearing on this form of man be discovered.

At the 593rd meeting of the Society held on December 15, 1925, Mr. W. H. Jackson, photographer (1870-79) to the Hayden Geological Surveys, related his experiences "With the Pawnee Indians 50 Years Ago," his address being illustrated with slides from his negatives made in 1868-71.

Mr. Jackson crossed the plains to California in 1866, the last year of overland travel by wagon train. Returning eastward as

far as Omaha, he went into the business of photography and began making pictures of the Indians, frequent visitors to the city, and of their outlying villages, with occasional trips to make views along the completed portions of the Union Pacific Railroad.

The Pawnee Reservation, where most of the pictures were made, was on the Loup Fork of the Platte River, about 100 miles west from Omaha. The two principal villages, composed entirely of earthen lodges, 30 to 60 feet in diameter, at the eastern end of the reservation, were the ones most frequently visited. Lieut. Long, who had passed that way 50 years previously, had estimated the Pawnee there to number 10,000 or more, but disease and constant warfare with their neighbors, the Sioux, had reduced them to less than one fourth of this number. Further aggressions, intensified because of the enlistment of many Pawnees into the Army to assist in protecting overland travel, led finally to their removal to the Indian Territory and the entire abandonment of their villages by 1875.

Besides detailed views of the villages, typical portraits, and the Industrial School with groups of children "before and after," illustrations were shown in conclusion of the laborious and complicated "wet plate" process for making photographs "50 years ago."

At the 596th meeting of the Anthropological Society on March 16th, Mr. W. H. Jackson, photographer to the Hayden Geological Surveys, 1870-79, reviewed his experiences of fifty years ago among cliff ruins and Pueblo villages in Colorado and New Mexico, illustrating his subject with slides from original photographs. While engaged in photographing among the San Juan Mts., in 1874, a chance meeting with prospectors, who told of some wonderful cliff dwellings not far from their camp on the Rio La Plata, led to the discovery, or more properly, the first published account, of the Mesa Verde ruins. (Letter to the New York Tribune, Nov. 3rd by Ernest Ingersoll.) Following their advice that something worth while might be found in that region, Mr. Jackson left his main party in camp at Baker's Park and with Mr. Ingersoll, and two packers, made a hasty side trip to the miners camp where he met John Moss, who had traveled extensively over the Southwest and who volunteered to guide the party through Mancos Canyon in the Mesa Verde, where he said the best examples of ancient cliff dwellings were to be found. On a six day ride taking in the Mesa Verde, the McElmo canyon and the Hovenweep valley, many of these ruins were discovered and photographed, but missed the greatest and most in-

teresting group of all, now the main feature of the Mesa Verde National Park, which was not discovered until fourteen years later. The results of this first expedition among the cliff dwellings were of such interest that exploration was continued the following year into Utah and Arizona. Mr. W. H. Holmes also led a party into this region, and while primarily engaged in geological work, yet devoted much time to archaeological research, paying particular attention to the towers of the San Juan Valley. Mr. Jackson's party followed the San Juan river to the Chinle, and thence to the Hopi pueblos. Returning northwards they visited the Abajo and La Sal Mountain region and then followed the Montezuma Canyon back to the starting point. Many interesting cliff, cave and town ruins were discovered and photographed, nearly every canyon, mesa or valley throughout the whole region containing evidences of prehistoric occupation. The Southern Utes, as well as the irresponsible renegades farther west, were troublesome this year, Mr. Gardner's topographical party being attacked near the Abajo Peaks by a large party, with the loss of three animals killed and all his camp equipment. Mr. Holmes' party came near losing all its animals, and Mr. Jackson also had frequent encounters, but without loss. In 1877 an extended trip was made through New Mexico to the Hopi pueblos in Arizona, during which Mr. Jackson made a detailed study of the Chaco Canyon ruins, and with the reports which followed, concluded his archaeological work for the Survey.

The 597th meeting of the Society was held in the United States National Museum on April 20, 1926. The program consisted of an address on "Fifty Years of Pueblo Archaeology" by Dr. Walter Hough. Exploration during the past fifty years in the Pueblo region forms an interesting history. Veterans of the discovery of the cliff-dwellings in 1874-75 are still with us, W. H. Jackson, who discovered and photographed, and W. H. Holmes, who sketched and pictured in oils the first cliff-dwellings. As this work on the Southwest archaeology was carried on by the U. S. Geological Survey and the Bureau of American Ethnology almost exclusively until recent years, it is observed that more than half of the investigators were members of the Anthropological Society of Washington.

In the period of reconnoissance beginning in 1869 the names of Holmes, Jackson, Yarrow, Powell, Stevenson, Bandelier, and Cushing stand out prominently. Beginning in 1879 work in all the branches of anthropology was actively prosecuted by the Bureau

of Ethnology. In 1886 the Mindeleffs studied the architecture of the ancient and modern pueblos over a wide region, furnishing invaluable data. Exploration in the sense of excavation of ruins began in the 80's. Cushing carried on exploration work on a large scale in the lower Salt River Valley and also collected archaeologica at Zuñi. Historically, the first ruin explored was at St. George, Utah, in 1869-70 by Edward Palmer, a most indefatigable collector. The St. George specimens are in the National Museum and the Peabody Museum at Cambridge, Mass. In 1894 Nordenskiöld published the results of his exploration of Mesa Verde cliff-dwellings. This work is a landmark. In the 90's Dr. J. Walter Fewkes entered the field, exploring a ruin called Skyatki on the Hopi Reservation. Dr. Fewkes continued his researches for many years and is still active. In this period came Hough, Hodge, Hewett, Moorehead, Dorsey, Owens, Pepper, Hrdlička, Prudden, and others.

The period of more intensive exploration presents the names of Kidder, Nelson, Morris, Judd, Cummings, Spier, Guernsey, Jeancon, sent out by different institutions. In this period methods depending on a classification of sherds, the presence or absence of pottery, stratification and superposition have cast much light on the history of the ancient peoples of the Southwest. We have here a good example of the normal development of research in the past 50 years. The order of culture in the ancient pueblos are now tentatively Basket Maker, Post-Basket Maker, Pre-Pueblo, Pueblo, and Recent. Much is to be expected of the active and enthusiastic workers of the present in clearing up the problems of Pueblo archaeology, and the best wishes of the Old Guard go with them.

The modern phase of pueblo exploration which was formerly impracticable in the vast field to be covered is seen in the National Geographic Society's work at Pueblo Bonito under the direction of Neil M. Judd, and Dr. A. V. Kidder's work for Phillips Academy, Andover, Mass., at Pecos. It is seen that great financial resources are necessary to uncover and thoroughly explore one relatively large ruin. This, however, is the only way to elicit the further story of ancient Pueblo Indian life.

JOHN M. COOPER,  
*Secretary*

## ARCHAEOLOGICAL WORK BY STATE AGENCIES IN 1925.

*Alabama.* Archaeological work conducted in Alabama during the current year has been practically altogether confined to some individual research by members of the Alabama Anthropological Society and the staff of the Department of Archives and History.

The one or two casual finds of urn-burials as far north as the old Alibamo town of Taskigi at the confluence of the Coosa and Tallapoosa, 12 miles north of Montgomery and near the center of the State, have been added to and it is now considered that this practise was general at that point. The location at the same time, indicates either the long habitation of several different peoples or that different practises were in use. Archaeological evidences indicate a predominance of Creek Indian suggestions though there are many recent excavations which show that the contact with Europeans had not at the time of death existed. During the year some interesting bobbin-shaped ear plugs and bear tooth ornaments were taken out. Adolescents in urns were often found in direct contact with interments at length and burials in flexed positions.

The river at this point is encroaching on the old site of the town and as the burials are here between the mound and the river, as well as east of the mound toward the rising sun, many of those on the Coosa River side are now getting into the stream. These rarely indicate European contact. In fact, only casual indications of trade objects are seen here and these may have been those of later days when the French Fort Toulouse was adjacent.

Reports have been received by the Department of Archives and History of finds at Clayton in the southeastern section of the State and a collection of pots indicating Creek manufacture was presented from the old village of Watoola in Western Russell County. This latter find is interesting in that this site is referred to in the Creek migration legend as the site of Watoola-Hoka-Hatche, or Whooping Crane Creek.

*Peter A. Brannon.*

*Colorado.* The annual archaeological expedition of the State Historical and Natural History Society of Colorado was in the field two months during the year 1925. The expedition had for its purpose the studying of two problems: the first one being that of an intensive examination of a circular dance plaza and the second



the excavation and study of a large mound whose surface features indicated a large circular building of river boulders.

The dance plaza problem was taken up and brought to a successful termination during the month of July. As a result of the work we now have a very good idea of a typical site of such a character. The first occupation occurred during the Post-Basket Maker period with well defined house and other remains. At a later period the site was reoccupied by the Pre-Pueblo people who used the central dance plaza but filled in the house sites on the outer periphery and erected dwellings of cobble stones upon the fill.

The whole site was covered with a dense growth of sage brush which is of very recent origin. The humus covering the entire surface of the site varied in depth from 3 to 6 inches.

The second problem was brought to a successful termination by the last of August and gave very interesting results. The mound, varying from 8 to 16 feet in height was built on the sloping shoulder of a mesa overlooking the Piedra river. Many of the boulders were of such size as to make it necessary to have two men handle them and it must have involved a tremendous amount of labor to have carried them from the river where originally found to the mesa top. No boulders even approximating them in size occur anywhere on the mesa tops.

The circular, tower-like structure was enclosed in a rectangular, solid mass of boulders. That it was used as a dwelling and not as a ceremonial house is indicated by the finding of two meal bins on the floor, with the sides and bottom intact and with the manos still in place on the little shelves made for them on the sides of the bins. What little pottery was found was definitely of Pre-Pueblo type.

In addition to the two problems studied, a few days were spent in pot-hunting on the Stollsteimer Mesa, three miles below the above named places. Some very good specimens of pottery of the Pre-Pueblo period were found, as well as several skeletons of which only one was in condition to exhumate.

After finishing the work on the Piedra river a week was taken to explore, photograph and measure certain ruins near the Colorado-Utah border. Here were found several amazingly large pueblos; some of them still having standing walls that rose to the height of thirty to forty feet, built of beautifully dressed sandstone. Judg-

ing from the surface indications the latest of these buildings belong to the "Golden Age" of the prehistoric pueblos.

There are many indications of earlier buildings and potsherds which indicate that some of these would go back into the early Pre-Pueblo or even the Post-Basket Maker period. The typical circular dance plaza of the latter period is very much in evidence.

*J. A. Jeancon.*

*Indiana.* In connection with the study of geological conditions in Harrison County, the State Geologist and a field party under his direction located a number of flint quarries, camp sites, stone shelters, mounds and burial places. A map will be prepared showing the location of these deposits. Reported discoveries in other parts of the State were examined.

During the field season representatives from the Indiana Historical Bureau and of the Division of Geology of the Indiana Conservation Department made an attempt to secure funds for the scientific investigation of some of the mounds in Indiana. The amount promised was not deemed sufficient for the purpose, and the exploration is delayed for the present.

The Committee on Archaeology of the Indiana Academy of Science called attention to the desirability of a law which would prevent the spoilation of archaeological mounds in Indiana, and invited the attention of the Committee on Legislation to the matter.

*W. N. Logan.*

*Michigan.* Mr. Emerson F. Greenman and the writer have confined their work to the archaeology of the state. Mr. Greenman spent four months in the field digging, chiefly in Missaukee county. He investigated two circular inclosures about 200 feet in diameter. He tentatively advances the theory that they were winter encampments of some, yet unidentified, group of Algonkian Indians. Two mounds were excavated within a mile of the inclosures. The nearest one contained the skeleton of an aged male with no accompanying artifacts, and the other mound a partially cremated body, evidently that of a mature person, buried with the latter was a copper axe enclosed in a layer of bark, probably a ceremonial piece.

The writer traveled over three thousand miles. in quest of information, in localities where Indian occupation appeared to have been somewhat permanent as evidenced by old "works" of one kind and another, the most of which have been ruined for systematic investigation.

A week was spent, accompanied by a gentleman who was formerly State Geologist, in looking over some of the old mine pits upon Keweenaw peninsula. No rock fissure was recorded as a place where Indians secured copper unless, at least several, stone implements, whole or in pieces, were found. An interesting specimen of extensive rock carving was charted and modeled in Tuscola country. Particular attention was given to tracing the waterways followed by the primitive inhabitants of the state. No doubt, in a country of thousands of lakes and connecting streams, there was more travel by water than by over-land trail. We have, with accuracy, traced numerous long trails traversing the state in various connections. There were not less than five water routes across the lower half of the Lower Peninsula from Lake Erie to Lake Michigan, with but two to five miles of portage. In high water, some of these portages could have been made entirely by canoe. The winter is being spent in charting the state by sections and in making maps showing travel and transportation routes and in revising records.

A small volume has been issued by the Museum upon "Primitive Man in Michigan" which it is hoped will serve as a kind of introduction to the larger work still to be accomplished.

The University has a fund, approximating a million dollars, for a new museum, work upon which will commence in 1926. This structure will provide amply, for considerable time to come, for the ethnological, and archaeological material and furnish offices and work rooms for the various departments in anthropology.

*W. B. Hinsdale.*

*New Mexico.* The Museum of New Mexico accomplished its third season of excavation, under the direction of Wesley Bradfield, at the Cameron Creek site in the Mimbres region. The results of the three season's work will be published in a full report during 1926, if possible, to release the information obtained and serve as a starting point for further investigation.

During the year, a reconnaissance of the archaeological sites in the State has been started by making a library of sherd collections containing all the variations of pottery found on each site. These are catalogued as they are received; notes made of the individual sites, with references; sherds analysed as to character, etc. At the present time, this library includes over 165 sites. The information thus obtained will be open to inspection and study at any time.

The cooperation of all archaeologists working in the State is asked that we may make the sherd library as complete as possible.

Two weeks excavation was carried on at Gran Quivira under the direction of Dr. E. L. Hewett, and several weeks additional work done in clearing away the debris from the old mission church and convent at the same site, by Mr. Hudelson, preparatory to carrying out plans for partial repair and restoration of the mission church buildings.

*Wesley Bradfield.*

*Ohio.* During the year we completed the Great Hopewell Group, which practically occupied the work of three seasons, and we are now satisfied that all of the mounds comprising the group have been carefully examined. The report upon this group has been prepared and will appear in our next quarterly, January, 1926, and many new objects were found in the Hopewell Group, especially designs cut in Mica as well as Copper. However, the Survey examining the mounds under the direction of Professor Moorehead found many designs in Copper but we were very fortunate in finding the designs in Mica.

A number of new features in burials were discovered, such as Copper nose-pieces; these were found for the first time in our Ohio mounds but later in the season we were able to find the same use of the Copper nose-pieces in Mound No. 2 of the Seip Group. Another interesting development was the finding of a great cache of forty or more celts, ranging in length from two inches to fifteen inches. In the same mound was found a fine example of the Grooved Axe, one of the best now in our Museum.

The final work on the Hopewell Group was completed the last of July. On the first of August the Survey moved to the Seip Group near Bainbridge, Ross County, Ohio, and began work upon the large Mound No. 2 of the Seip Group. This mound is 250 feet long, 150 feet wide and 30 feet high. Practically one-fourth of the mound was completely examined before the season closed—October 1st, and many very interesting problems were brought to light.

A large sarcophagus, made of logs, was found not far from the west end of the mound. This sarcophagus contained four adults and two children. The adults had been wrapt in a burial robe, which was covered with designs beautifully colored in red, yellow and black, and these colors were practically preserved by large copper plates which were placed beneath the bodies. This is the first

we have found of colored cloth in our Ohio mounds. The burials were also profusely covered with pearls made into the form of beads and for the most part attached to the colored cloth. Directly above the grave were found 5 large pipes—the largest one weighing  $7\frac{1}{4}$  pounds. These pipes were made in the form of effigies of the dog, owl, bear and night-hawk, and were purely Southern in type. The Survey is looking forward to 1926 with much interest. *Wm C. Mills.*

*Oklahoma.* Our work began in the latter part of May, 1925, in Delaware County, Oklahoma, which is in the northeastern part of the state and which borders on both Arkansas and Missouri. In its area is embraced a part of the western extremity of the Ozark Uplift. It is rich in prehistoric remains since there are numerous caves, caverns and overhanging shelter ledges in the Boone Chert formation which were used as habitations by the Stone Age man. Mounds of the true Mound Builder type are to be found along several of the valleys and the smaller tumuli (domiciliary) of the comparatively recent Caddoan era are fairly common in certain localities. Thus far, we have not found any chert quarries within the limits of Delaware County, though there are some very extensive quarries of this class in the neighboring county to the north (Ottawa), which were examined and explored by Dr. William H. Holmes, of the Bureau of American Ethnology, more than twenty-five years ago.

The particular objects selected for excavation and examination during the season to be spent in that locality were (1) a cave, situated about three miles west and slightly south of the town of Grove, and (2) a mound located five miles north of the same place. My principal assistants were Mr. Otto F. Spring, whose boyhood and early youth had been spent in the community in which this work was to be done, had been educated in the University of Oklahoma, where his major course was in geology, and Mr. Harry C. Robertson, of Blackwell, Oklahoma, who had just received his bachelor's degree from Phillips University, at Enid. As a boy not yet through with his high school course, Mr. Spring had worked with me in the summer of 1916. Mr. Robertson had done considerable work on his own account in his home county, with some advisory assistance from me. We had a number of voluntary helpers, nearly all of whom were college and university students. We also employed the services of several laborers who were secured locally.

With a small group of student helpers, I had worked out the mouth of the same cave, in the summer of 1916, when the interior

was also partially explored. At that time, I succeeded in gaining access to a rather large chamber, situated at a distance of about 300 feet from the mouth of the cave but a very circuitous passage though but a fraction of that distance in a direct line. This interior chamber had evidently been inhabited but the original entrance had been sealed up and all surface traces thereof had disappeared. In arranging for the resumption of work in this cave, in 1925, it was my hope to be able to locate and reopen the former entrance. Unfortunately, the remote and rather tortuous passage, through which I had gained entrance to this chamber in 1916, proved to have been entirely filled with a drift of clay during the intervening period. An effort was therefore made to drive a tunnel through to this chamber by a direct course from the mouth of the cave, the distance between the two being estimated at from forty to fifty feet, with the material to be excavated consisting of a mixture of broken stones and heavy clay. Because of the excessive moisture due to a low temperature in the cave and the consequent condensation of water from the humid air currents passing through from the exterior, the work had to be discontinued until a cooler season and it has not since been resumed.

Another chamber of large floor area, but with a very low roof, was explored and found to be much more readily accessible. Its floor contents were removed and carefully sifted, resulting in the finding of good collection of specimens of Stone Age arts and crafts. The roof and floor of this chamber were so close together as to suggest that, unless the former had settled, this part of the cave could scarcely have been used for domiciliary purposes. It therefore seemed possible that the implements, weapons and utensils found therein might have drifted thither, especially as the floor seemed to slope downward in a direction toward the side of the chamber which was farthest from the edge of the bluff. Then, when further excavation revealed the fact that the edge of the chamber next to and paralleling the face of the bluff ended in a fault or perpendicular slide it became apparent that the chamber itself had once been a backward extension of a much more roomy rock shelter, the front of which might be found to have collapsed as the result of some sort of a cataclysm. Accordingly, we started a cutting from the face of the hill or bluff in front of this chamber, back to the outer edge of the same. This resulted in finding abundant evidence to the effect that there had been just such a collapse of the roof of a rock shelter

which had been inhabited, its floor now being buried beneath a deposit of from six to fifteen feet of rock and drift material from further up the slope.

The specimens secured from this cave, implements and weapons of chert and other forms of silicious rock, polished stone ornaments, bone implements and ornaments, beads fashioned from shell, bone, ivory and from teeth of animals, earthenware pottery (in fragmentary condition), bones and teeth of many game animals, bones of game birds, bivalve shells of many species, and bones and teeth of human beings, some of the human bones being in such fragmentary or charred conditions as to be suggestive of cannibalism. Nearly all of the bones of game animals had been cracked or broken for the evident purpose of extracting the marrow.

In cutting the passage from the main corridor of the cave into the low chamber a few feet to one side, it became necessary to remove, by blasting with small charges of dynamite, a large rock, sixteen inches thick and having about thirty-six cubic feet of material. It was evident that this rock had been embedded in the floor of the chamber for ages, yet, when it was removed, the clay underneath was found to contain fragments of bone which had been artificially broken, thus indicating that there had been an era of occupancy much more ancient than that which we were then investigating.

The mound, mentioned in the beginning of this report, was located in the valley of the Elk, or Cowskin River, within a mile of the confluence of that stream with the Grand, or Neosho River. It had been cone-shaped, originally, with an altitude of fourteen feet and a basic diameter of thirty-three feet. It had been constructed of light-colored clay, in which water-worn pebbles were of frequent occurrence, and, when completed, had been covered with a layer of black loam soil about eight inches thick. It was surrounded by a dense forest growth and trees of varying sizes were found growing on its surface.

Unfortunately, several years before our work began, this mound had been invaded and torn open at the top by vandals, at the instance of a commercial collector. Following the discovery of this trespass, the owner of the property hired inexperienced and unskilled help and continued the operations for a time. Naturally, the work was more or less clumsily performed and many artifacts were destroyed or lost. Moreover, there was no attempt made to keep any notes or records of the work and its results. Most of the collection—and

the best of it—was sent by the owner to an eastern museum. In consequence of all this, we were privileged to excavate only a little more than one third of the bulk of the mound. As previously stated, the mass of the mound was composed of a light-colored, compact clay. This, with the steep slope of the surface, resulted in an absence of visible moisture throughout the greater part of the mass and its dissection was difficult and tedious in consequence.

That this mound had been built ceremonially was quite evident. On the ground level, and approximately at the center of the base, there was found a group of three small ceremonial stone pipes. From the design of these, I was led to the belief that they were of proto-Siouan origin. If so, the construction of this mound must have antedated the settlement of the Siouan peoples on the Atlantic Coast. If such be the case, this should serve as a clue to the prehistoric migrations of at least one important linguistic stock. It did not appear that the mound had been designed for purposes of sepulture. Scattered throughout its bulk were many specimens of earthenware pottery, mostly broken, together with copper implements and ornaments, all seemingly deposited as votive offerings. The earthenware consisted principally of bowls and water bottles, nearly all of which were well made and gave convincing evidence of an artistic taste and skill of a high order. A number of pairs of pulley-shaped, deeply grooved stone ear ornaments were also among the items found. Most of these had had the obverse face or flange encased in a thin sheet of copper which fit perfectly, whether the surface be plain and smooth or ornamented with etchings or relief carvings, were found, as also several thin, flame-shaped or serpentine copper ornaments which might have been used in decorating a shield or a headdress. Among the copper implements were small, double pointed spindles and a tube that might have been used as a blowpipe.

If the mound had not been originally designed for the interment of the dead, it certainly had been diverted to such use in a more recent period. Scattered over its sloping surface were the evidences of not less than fifty shallow, intrusive burials. With several of these were found typical specimens of the modern Siouan ceremonial pipes, thus indicating the presence of people of some one of the tribes which compose the southern division of the Siouan stock—probably Osage. It would therefore seem not unlikely that these intrusive surface burials had been made within the past two centuries.

Although we were not privileged to work out the whole mound,



which would have been highly desirable, we secured a valuable collection of artifacts and, with it, a goodly stock of pertinent information which may prove to be equally valuable in comparison with the results attained in the excavation of similar earthworks elsewhere. There are numerous other tumuli of the true Mound Builder type in Oklahoma but whether all of these were of the same cultural origin remains to be determined.

After finishing the work undertaken on the mound and in the cave, the scene of operations was changed to a rock shelter, distant about three miles in a northwesterly direction from the cave. Several weeks were spent in excavating ash deposits at this site. The resulting finds seemed to indicate the remains of two, and possibly three, cultural eras, one being the same as that of the cave and the other still more ancient. The expediency of doing more extended work in other caves and underneath other rock shelters of that region in order to make possible the further study and the more complete identification of these several cultures is apparent.

Available funds for the continuance of the fieldwork having been exhausted, the work had to be discontinued for a time. After an interval of a few weeks, limited funds were secured from private subscriptions, whereupon the work was resumed, the scene of operations being shifted to Boone County, Arkansas, where the contents of two caves were excavated and thoroughly searched. One of these, located near the village of Everton and commonly known as the Brewer cave, proved to be of a culture distinct from that of the cave on the bank of Honey Creek resembling if not being identical with that of the rock shelter in Delaware County, Oklahoma, while the other, locally known as the Saltpetre cave, distant about six or seven miles from Everton was apparently of the same culture, yet with such marked distinctions as to suggest pronounced variation in habits. The contents of another large cave, distant about twenty miles from Everton, were examined and seemed to be of a culture entirely distinct from either of the others. As the result of our work in the caves and rock shelters, limited though it may seem to have been, we have been impressed with the importance of a concerted effort on the part of several competent investigators in the way of a proper differentiation and adequate identification of the several cave cultures of that region.

In conclusion, I wish to state that, as the result of recently secured subscriptions from private sources, we have resumed work, with

the scene of operations again shifted, this time to Kay County, on the Arkansas River, near the Kansas boundary, where several chert quarries and village sites—the latter of Caddoan origin and dating back not much if any more than two centuries—are to be worked. Later on, some time during the summer season, we want to undertake the dissection of a rather large mound which is in reality the ruin of a considerable pueblo, once inhabited by a stock of people who tried to practice agriculture by means of irrigation in north-western Oklahoma and southwestern Kansas, some centuries since.

*Joseph B. Thoburn*

*Pennsylvania.* The "Indian Survey" of the Wyoming Historical and Geological Society of Wilkes-Barre began in March, and, made possible by the interest of a member of the Society, was undertaken because the story of the Indian culture of Pennsylvania has never been written, although other states with a less important Indian occupation, have investigated the evidences within their boundaries; and because the rapid disappearance of the evidences of the life of the Pennsylvania Indians through the encroachment of modern developments, makes it vitally desirable to gather all possible information before it is too late. The survey has been carried on under the direction of Arthur C. Parker, formerly N. Y. State Archaeologist, now Director of the Rochester Museum.

The effort to locate as many known sites as possible resolved itself into an "exploring expedition on paper." Approximately 13,000 letters were sent to the 2100 postmasters in the territory covered, Historical and Patriotic Societies, Farm Bureau and Grange leaders, foresters, school teachers, Scout masters, and many hundred known individual collectors in the forty-one counties comprising the Eastern portion of the State—west of the Alleghanies the tribal culture and relations were entirely different. Posters for distribution and question blanks to be filled out were enclosed in the letters. The newspapers throughout the region co-operated generously and published articles sent them explaining the survey, asking all individuals who had found Indian artifacts to communicate with the Society.

The subject of the Indian is apparently more popular with the average citizen than is commonly supposed. The Society did not wait long for the response. The postman was swamped with replies, varying in interest and importance from "Don't know nothing about these goods," to the invaluable information turned in by amateur

collectors and well-known historians. Photographs of rocks covered with Indian picture-writing, soon to be covered by one of the super-power dams, have been received. Old trails soon to be obliterated by railroad cuts and fills have been brought to the Society's attention. Persons having knowledge of special regions have recorded on maps furnished them for the purpose, burial grounds, village and camp sites, caches, etc. All the information has been arranged by county and is being catalogued; the names of the many persons offering further help being listed separately, for future reference.

The effectiveness of the survey is evident in that more than 1900 sites have been reported. *Dorrance Reynolds.*

*Tennessee.* Three trips were made for the purpose of visiting and reporting on that section of the country tributary to the Tennessee River in the vicinity of Buffalo and Duck Rivers in Humphrey, Houston, Hickman, Dickson and Perry Counties. A fourth trip resulted in the procuring of a number of relics which are to be used in the State Archaeological Museum now being prepared in the Memorial Building at Nashville, Tennessee. There were collected a number of interesting and unusual mound builders' relics and preparations are being made for the installation of these relics in the museum. There has been furnished by the State, a large, commodious room in a fire proof building, well lighted, in which building is located my office as State Archaeologist.

I have endeavored during the year to select and appoint an assistant state archaeologist in every county in the state, but have not succeeded in securing such official for each county but already have a great number appointed who are active in their work.

During the month of March, 1925, I briefly explored some interesting caverns on Obed River, and found evidences of very long occupancy and it was in this field I expected to do extensive work during the year 1925. I did enough work to be satisfied that the people used the caverns both for residential and burial purposes.

*P. E. Cox.*

*Texas.* In 1917, the writer was elected to the headship of the old School of Institutional History in the University of Texas, which he accepted with the understanding that this school was to be converted into a School of Anthropology to be conducted after the manner of such departments in the larger universities of the country at large. He at once invited Dr. J. Walter Fewkes to visit him at Austin

and was favored with a visit early in 1919. Dr. Fewkes and the writer reconnoitered together a considerable portion of the Central Texas region for promising places for research. They visited the Round Rock mounds, which had been partially explored already by the writer, and Dr. Fewkes was much impressed with their appearance and promise of revelations of the life of early man in Texas. With various groups of friends, the two visited Gatesville, one hundred miles west of north from Austin, where, in the rich valley of the beautiful clear Leon River, many evidences were found of the presence there, at one time, of a relatively settled primitive population, possessing a higher culture than that evidenced in the burnt rock mounds. Potsherds of a high grade pottery, many manos and metates, one extensive pure shell mound, extensive collections of beautifully chipped arrow points, in private hands, some skeletal remains taken from the sand dunes adjacent to the valley, also in a collection, one rock shelter under which were numerous pot holes or mortars in a ledge of firm limestone, and other evidences of the extensive use of this shelter as a home, were among the things found or seen and examined. Later, San Marcos was visited, and a rock mound, buried largely by deposits of river drift, near Barton Springs in the edge of Austin was inspected.

The outcome of his visit was an arrangement between the Bureau and the Department of Anthropology in the University of Texas for a joint exploration of several of the "burnt rock" kitchen-middens of Central and West Texas, in scattered and representative parts of the regions in which they occur, and for exploration of any other interesting archaeological remains that might be discovered and deemed worth exploring in certain portions of the State.

In pursuance of this agreement, the writer set out to finish a preliminary survey already under way, in order to locate the most promising mounds, camp-sites, etc. and to delimit the immediate field of operation. A questionnaire and circular letter were sent to nearly 10,000 persons in the state. This was done in the late winter of 1918 and early spring of 1919. These were sent to nearly all school principals in the small towns and country districts in the state, to county superintendents of public instruction, to various other county and state officials, and to other citizens.

The questionnaire sought information from the persons addressed as to the existence of anything known to be or supposed to be of Indian origin or to have been particularly related to or used in the former Indian life of the region, such as mounds, burial places,

camp sites, caves and rock shelters once inhabited, rock paintings and inscriptions and collections of artifacts in the hands of private individuals. Finally, the names and addresses of persons interested in such matters and names of old settlers who knew personally the Indians of Texas were asked for. The term "Indian" is naturally applied to all relics of early man known to the present white population and a definite response could be better had from them by using the term in seeking information.

Several hundred of the questionnaires, more or less filled out, and a considerable number of letters were received in response. They came from all sections of the state.

The information thus gathered served to indicate, roughly, the regions in which the burnt rock mounds are to be found; also the region of the funeral mounds, and the regions in which there are no mounds whatever.

Considerable other information was also obtained that will aid materially in future archaeological research throughout the state, such as the location of rock paintings, petroglyphs, caves that might have been used for habitation and of shell mounds, burial places, and collections in private hands.

All information gathered was filed under the names of the 265 counties of the State and has been added too, slowly, by information gathered in field work, from students in the anthropology classes of the University of Texas, from newspapers, from correspondence and from other sources.

This survey is far from complete, but has served fairly well as a rough guide. Information obtained in this promiscuous way, often from wholly unsophisticated sources, would be, necessarily, of very uneven value. Most information concerning the presence of mounds was fairly dependable but some of it turned out to deal with natural eminences. Research work in the Central part of the State has been carried on sufficiently for the succeeding culture periods to begin to appear and to aid in interpreting reports from other parts.

In the Trans-Pecos is a region of low hunter culture involving some cave dwelling. Some crude rock inscriptions are found here, some weaving of nets for the capture of rabbits. This culture merges into Pueblo culture as one goes west and north.

On the Plains and in the limestone regions, extending east from New Mexico to the Balcones Fault line (Dallas-Austin-San Antonio

highway approximately) is the region of the "Burnt rock mounds." These are Kitchen-midden deposits, numerous, extensive, well defined and containing many evidences of a predominately nomad hunter culture. In this region there are almost no signs of pottery, and almost no polished stone but many grades and styles of flint chipping from very crude to some of the most delicate and beautiful in the world.

On the black land prairies, extending from the Balcones Fault to meridian 96°, archaeological remains of any kind are very scarce on the surface. There is a little flint here and no limestone. Few or no springs exist and so there is no special reason why early man should have remained about any one place or have camped repeatedly at the same spot. The soil of this region is clay and the streams carry much silt. This silt covered all remains as they were deposited, so they are rarely concentrated.

East of meridian 96°, the whole region is heavily wooded and is closely assimilated, generally, to the lower Mississippi Valley. Here are numerous earthen mounds often containing burials, much pottery, polished stone, and many evidences of a settled village horticultural life.

Along the coast, cultural remains are scarce. It is here that one would expect to find evidences of migration from the Mississippi Valley to Mexico or *vice versa*. No such evidences have been found in positive form. The surface evidences are largely, and, so far as the writer knows, entirely of the historic culture of this region, which was low. Possibly older and more interesting things are to be found far below the surface, as extensive deposits of silt are thrown down constantly, throughout the low coastal region by the heavy floods to which this region is subject.

The recent discovery of positive, seemingly indisputable, evidences of Pleistocene man on the upper Colorado, in Mitchell County, and in the terraces of the Trinity, at Dallas, have added immensely to the importance of the Texas field. The exploitation of this field will probably go forward much faster in the future. We of the University of Texas will continue to add to and improve our survey as fast as we can. The one thing needful is funds.

In addition to the above, the writer has traveled extensively over the State in auto, visiting nearly all parts, to investigate promising sites for research work and has seen and examined some two or three dozen collections in private hands. Some of these collections

have been gathered over half of a century of time by men who, in some instances, have some knowledge of archaeology. A number of these will have serious value in working out the final interpretations of Texas archaeology.

Finally, research work has been done rather extensively in Central Texas, the results of which will be published sometime soon and which will go a long way to supplement the survey. *J. E. Pearce.*

*Wisconsin.* Field work was conducted during the year chiefly in the counties of Columbia, Dane, Juneau, Marquette and Jefferson, with scattering investigations and surveys in other counties. Some explorations were conducted in Green Lake county by the Milwaukee Public museum. A fifth addition to "A Record of Wisconsin Antiquities" has been published. Dr. W. G. McLachlan has completed his investigations of the Indian remains of the Lake Kegonsa region and his report has been published by the society.

A group of Indian burial mounds located on the old Assembly grounds at Delavan Lake has been preserved and marked with a tablet. An effigy mound in Devils Lake state park has been restored and a descriptive tablet provided. Mounds now preserved in three Madison parks are to be marked during the present year.

The society has held seven monthly meetings at Milwaukee during 1925. On April 10 and 11 it held a joint meeting with the Wisconsin Academy of Sciences and the Wisconsin Museum's Conference at Oshkosh, and on October 22 and 23 a similar meeting with the Museum's Conference at Green Bay. Here the Brown County Historical Society has marked with wooden and metal tablets many sites of early Indian occupation.

The Hubert M. Jaycox collection of archaeological materials from the Aztalan region, in Jefferson county, has been presented to the museum of the state normal school at Whitewater. The W. W. Gilman collection of Dane county material has been placed in the care of the State Historical museum, at Madison.

During the 1925 summer session of the University of Wisconsin Mr. Charles E. Brown delivered several lectures on local archaeology and conducted the archaeological excursions to sites about the Madison lakes.

*Charles E. Brown.*

A. V. KIDDER

## ANTHROPOLOGICAL NOTES

### CATHOLIC ANTHROPOLOGICAL CONFERENCE

On April 6, 1926 a tentative plan discussed by Fathers Leopoldt, Tibesar (Maryknoll, N. Y.) and John M. Cooper (Catholic University, D. C.) resulted in an organization meeting of the Catholic Anthropological Conference. The general aims set forth are the promotion of ethnological training for candidates for missionary work and of ethnological research and publication by Catholic missionaries.

Various practical problems were discussed, and it was the consensus of opinion that the efforts of the Conference "should not be linked up with any particular university or religious order, but that it should be a missionary enterprise including all orders engaged in missionary work."

The Rt. Rev. Bishop Shahan of the Catholic University was elected President, and Dr. Cooper, Secretary-Treasurer; the Executive Board includes Fathers Muntsch and Tibesar; Msgr. Quinn and Msgr. Hughes. A yearbook was adopted as the immediate means of publication.

THE WEST TEXAS HISTORICAL AND SCIENTIFIC SOCIETY has recently been founded at Alpine, Texas. The society is incorporated and has permanent directors. A special room containing six glass cases has been set aside as the beginning of a Museum. Already an excellent start has been made towards the assemblage of a unique and valuable display. The Indian collection is of unusual scientific value, and represents well the aboriginal culture of Western Texas. The Society plans not only to collect specimens but also to record folklore and other ethnological data.

The annual dues of the Society are one dollar. Life membership costs twenty-five dollars. The Museum and offices of the Society are at Sul Ross State Teachers College, Alpine, Texas.

"HUMAN ORIGINS" (in two volumes) by George Grant MacCurdy has been selected by the American Library Association as one of the forty most worth-while books published in the United States during the calendar year 1924. This is part of the plan of the International Committee on Intellectual Coöperation of the League of Nations to select annually 600 outstanding books published in all countries. Forty is the maximum quota for countries publishing 10,000 or more books each year.

B. E. PETRI. Professor of Anthropology of the University Irkutsk, Siberia. well known also by his archaeological and palaeontological



investigations in Siberia, is inquiring whether any of the American scientific institutions would be willing to publish some of his material and to help him financially for supplying his work with adequate drawings and plates and for the English translation of his manuscripts. His work on the Siberian Paleolithic, Neolithic, and Metal Ages forms quite a comprehensive treatise. It may be noted that our knowledge of the Siberian Stone Age is quite meagre. Prof. Petri had published in Russian only brief accounts of his studies. Institutions or individuals who may be interested in the above material may enter in direct communication with Prof. Petri. His address is as follows: Professor B. E. Petri, University Irkutsk, Siberia, U. S. S. R.

*Waldemar Jochelson.*

DR. HERBERT J. SPINDEN of the Mason-Spinden Expedition to Central America which left last January, arrived in New York on May 23 with a collection of Indian materials from North Honduras and the islands on the coast.

*Science*

DR. S. A. BARRETT of the Public Museum of Milwaukee was among the ten men who were awarded the Lapham Medal for notable research in anthropology in Wisconsin by the Wisconsin Archaeological Society at the its silver anniversary.

*Science*

Dr. Aleš Hrdlička left on May 17 for Alaska to make a scientific survey of the probable route by which primitive man first reached the American continent. The expedition is under the auspices of the Bureau of American Ethnology.

DR. J. WALTER FEWKES worked during the summer in the Grand Canyon area of Arizona in an effort to preserve the prehistoric dwellings of that region. He concentrated his attention on the Wupatki National Monument near Flagstaff.

At the annual meeting of the Anthropological Society of Washington on April 20 the following officers were elected for the ensuing year: President, Mr. Neil M. Judd; Vice President, Mr. David I. Bushnell, Jr.; Secretary, Dr. John M. Cooper; Treasurer, Mr. Henry B. Collins, Jr.; Mr. Herbert Krieger, Dr. Charles L. B. Anderson, Mr. J. N. B. Hewitt, Dr. Daniel Folkmar, Mr. B. H. Swales were elected councilors.

The Huxley Memorial medal of the Royal Anthropological Institute of Great Britain has been conferred for the year 1927 upon Dr. Aleš Hrdlička who will go to London in November 1927 to deliver the Huxley lecture before the institute and receive the medal.

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